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ABSTRACT

Four articles comprise this monograph on interventions which lead to employment of youths with disabilities. Articles are based on investigations and demonstrations sponsored by the Office of Special Education and Rehabilitative Services (OSERS). In "Promoting Employment for Youths in Transition: Outcomes, Activities, and Indicators," Paula D. Kohler and Frank R. Rusch present a model for systems change based on outcomes, activities, and indicators for promoting employment in this population. The article presents an overview of the OSERS investigations leading to the model's development. The second article, "An Analysis of OSERS'-Sponsored Secondary Special Education and Transitional Services Research" (Frank Rusch et al.), contains the findings from an analysis of five federal funding competitions focusing on transition to work or postsecondary education, in an effort to identify quality indicators and outcomes. In a further extension of this line of research, Frank Rusch et al. in "Employment Outcomes and Activities for Youths in Transition," identified 22 outcomes and 65 related activities associated with employment. Of these, OSERS project directors ranked the following as the most important outcomes: utilizing individualized education plans, educating students alongside their nondisabled peers, and documenting progress in employment-related skill areas. Finally, in "School-to-Work Transition: Identification of Employment Related Outcome and Activity Indicators," Paula Kohler and Rank Rusch identify measures to serve as indicators for each outcome and activity identified earlier by project directors. The listing of outcome and activity indicators is appended. Individual papers contain references. (DB)

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Employment of Youths with Disabilities: Outcomes, Activities, and Indicators

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Employment of Youths with Disabilities: Outcomes, Activities, and Indicators

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INTRODUCTION

Passage of the Individuals with Disabilities Education Act Amendments of 1990 marked a new area of accountability in secondary special education and transition-related services. To achieve the full intent of this legislation, the field must identify those activities that result in positive outcomes, and develop appropriate programming accordingly.

The four articles comprising this monograph represent a major contribution to this search for interventions that will lead to employment of youths with disabilities. In "Promoting Employment for Youths in Transition: Outcomes, Activities, and Indicators," Paula D. Kohler and Frank R. Rusch present a model that has the potential to serve as a blueprint for systems change. Specifically, through a series of investigations that identified actual program outcomes and activities of OSERS demonstrations, and subsequent consensus building involving the directors of these model programs, these investigators developed a conceptual framework of outcomes, activities and indicators for promoting employment of youths with disabilities. This articles presents an overview of these investigations and the resulting model. Subsequent articles present a detailed description of the method and findings associated with each of the studies.

The second article, "An Analysis of OSERS-Sponsored Secondary Special Education and Transitional Services Research" (Rusch, Kohler, & Hughes), contains the findings from an analysis of five competitions focusing on transition to work or postsecondary education in an effort to identify quality indicators and outcomes.

In a further extension of this line of research, Rusch, Enchelmaier, and Kohler, in "Employment Outcomes and Activities for Youths in Transition," identified 22 outcomes and 65 related activities associated with employment. Of these, OSERS project directors ranked the following as the most important outcomes: utilizing individualized education plans, educating students alongside their nondisabled peers, and documenting progress in employment-related skill areas.

Finally, in "School-to-Work Transition: Identification of Employment Related Outcome and Activity Indicators," Kohler and Rusch identified measures that would serve as indicators for each outcome and activity identified earlier by model demonstration transition project directors. Beyond its original purpose, this investigation also led to a comprehensive representation of strategies associated with each outcome and each activity.

The studies reported here introduce new knowledge about employment outcomes that has emerged over a relatively short period of time. Beyond their immediate impact on educational agencies and other service providers, the findings and specific recommendations presented in this monograph have far-reaching implications also for personnel training and teacher certification, school restructuring, and future research.

Chapter One

Promoting Employment for Youths in Transition: Outcomes, Activities, and Indicators[1]

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Running Head: PROMOTING EMPLOYMENT

Abstract

This paper presents an overview of a three-phased investigation that featured (a) an analysis of OSERS demonstrations focused on employment, (b) consensus development with respect to specific employment-related outcomes and activities, and (c) the identification of employment-related outcome and activity indicators. An emerging systems-level conceptual framework (cf. Rusch & Phelps, 1987) for evaluating program activities and outcomes is presented also. Further, we present an analytical model that illustrates the perceived relationship between an outcome, activities associated with producing the outcome, and indicators. Phase I results included identification of the outcomes and activities most frequently cited by 42 model demonstration projects focused on employment. During Phase II, 22 specific outcomes and 64 associated activities were identified and socially validated by 106 model demonstration project directors. Finally, during Phase III, a comprehensive list of measures was identified for 17 of the outcomes and 51 activities. Results from each phase provide substance to the analytical model featuring specific outcomes and activities at multiple levels of impact, supported by both qualitative and quantitative indicators. Implications for program restructuring and systems change are discussed.

Promoting Employment for Youths in Transition:
Outcomes, Activities, and Indicators

The necessary knowledge, technology, and resources are now available to see the course that today's youths with disabilities should take in preparing for the challenges facing them tomorrow. If the practices that are being validated by federally sponsored model programs throughout the United States could be introduced in every high school, secondary special education effectiveness would be drastically improved.

Clearly, high school experiences are a cornerstone to assuring a youth's success throughout life. Indeed, failure to provide an effective high school experience results in personal shortcomings, including failure to attain additional education and training to help mold a career of personal choice.

How well are our youths with disabilities making the transition from high school student to contributing member of society? How well do high schools prepare students for employment? Do students' friendships extend beyond the high school years into early adulthood? Do students with disabilities engage in community activities?

Ample evidence is available to suggest that our high schools fail to achieve desired and expected outcomes for all students, regardless of ability (Education Commission of the States, 1983; National Assessment of Educational Progress, 1990; National Center for Education Statistics, 1990; National Commission on Excellence in Education, 1983). For youths with disabilities, the unemployment rate exceeds 50% (Wagner, 1989). An even greater percentage drop out of high schools each year. Although many of these youths leave school for employment, most do not find it. Tragically, tens of thousands of youths with disabilities leave high schools without the skills or the support needed to survive independently in their communities. Specifically, youths with disabilities who leave school early have less than a 35%

chance of finding work (Mithaug, Horiuchi, & Fanning, 1985). Further, youths with disabilities live dependently; over 80% live with their parents after high school (Wagner et al., 1991).

High schools appear primarily to be a training ground only for our nation's most promising students--those who will graduate and pursue a college education. Students who do not aspire to a postsecondary education, on the other hand, appear to be virtually isolated from any unified system that addresses their needs.

There is, however, reason to be optimistic about the potential for improving secondary education in this country. Over the past decade, much research has been sponsored by the Office of Special Education Programs, U. S. Department of Education, to address the complexities of providing an effective secondary special education. Policy-makers, parents, and educators from a variety of fields have turned their attention to reform-related issues, including the transition from high school to adult life. In particular, much attention has focused on programs and practices for promoting employment for youths with disabilities.

The purpose of this paper is to summarize findings of federally sponsored research focused on school-to-work transition with respect to employment-related outcomes and activities. Specifically, we present an overview of a three-phased investigation that featured (a) an analysis of OSERS demonstrations focused on employment, (b) consensus development with respect to specific employment-related outcomes and activities, and (c) identification of employment-related outcome and activity indicators.

Prior to presenting the three phases, we discuss our emerging systems-level conceptual framework (cf. Rusch & Phelps, 1987) utilized throughout each phase of the investigation for evaluating program activities and outcomes. Further, we present an analytical model that illustrates the perceived relationship between an outcome, activities associated with producing the outcome, and indicators. Finally, we discuss this research in light of generalizations that may be made to all students who are not college bound and who form a large network of youths who aspire to graduate and get on with their lives. Most importantly, this paper introduces new knowledge relevant to employment outcomes that has emerged over a relatively short time.

Analytical Framework

Two analytical models were developed and/or extended during the three-phased investigation: (a) a systems-level conceptual framework for evaluating program outcomes and activities, and (b) an organizational framework for perceiving relationships between outcomes, activities, and indicators. Critical to each phase of the investigation, these analytical models provided the framework for analyzing and the structure for presenting and interpreting the results. A brief description of the two models follows.

Systems-Level Conceptual Framework

Throughout each phase of the investigation, employment outcomes and activities were organized according to the systems-level conceptual framework originally conceived by Rusch and Phelps (1987) and used subsequently to analyze model demonstration final reports to identify project purposes, activities, outcomes, and barriers (e.g., Rusch, Hughes, & Kohler, 1991). Featuring four levels of possible impact, this framework suggests that programmatic outcomes extend beyond the individuals who participate in a particular program. Further, the model suggests that programs focused on promoting employment outcomes may have to achieve outcomes across multiple levels to produce meaningful, systemic change.

The four levels include (a) the student and family, most often the primary focus of a program or intervention; (b) the program responsible for administering the intervention or providing the services; (c) the organizations that collaborate with the program to provide services; and (d) the community, which includes all the generic services, opportunities, and barriers that make up the environmental context of a program. The conceptual framework is graphically represented in Figure 1.

Insert Figure 1 about here

Organizational Framework of Outcomes, Activities, and Indicators

Efforts to determine program effectiveness have been plagued by a lack of agreed-upon outcomes and well-defined activities associated with specific outcomes (Bruininks, Wolman, & Thurlow, 1990; DeStefano & Wagner, 1992; Halpern, 1990; Oakes, 1986; Rusch, Kohler, & Hughes, 1992). Another problem relates to a need for measures that indicate the level and degree of intervention (activities) and achievement (outcomes). Thus, the relationships between targeted outcomes and activities, and their indicators, are often ambiguous, lacking clear definition and a conceptual framework that illustrates the perceived relationship.

Our perception of the conceptual arrangement--or organization--between outcomes, activities, and indicators is illustrated in Figure 2. This model posits that outcomes are the product of action and that particular indicators provide evidence that the outcome has been achieved. Further, activities, in the form of specific statements, represent the action associated with producing the outcome(s); indicators associated with each activity suggest that the activity has taken place. The substance that provides "life" to this model represents the underlying goal of the three-phased investigation, that is, the identification of agreed-upon outcomes related to employment, activities associated with producing the outcomes, and indicators or evidence that the outcome has been achieved and the activities implemented.

Insert Figure 2 about here

Phase I: Analysis of OSERS Demonstrations Focused on Employment

Faculty and research assistants at the Transition Research Institute at Illinois routinely analyze the final reports of model demonstration projects by competition areas to identify project demographics and purposes, as well as activities, outcomes, and barriers cited. The purpose of Phase I of this investigation was to aggregate the findings from five OSERS competitions, four of which focused upon transition from school to work.

Specific areas of analysis included: (a) examining project variables across competitions using the systems-level analytic model; (b) determining the degree to which projects aligned themselves with the purposes stated in the OSERS' competition announcements; and (c) examining relationships among project purposes, activities, outcomes, and barriers, including identifying those variables most frequently cited by projects. [The complete manuscript of this study is included in Rusch et al. (1992), the second article in this monograph.]

Method

The four employment-focused OSERS competitions examined in the Phase I analysis included (a) Research in Education of the Handicapped: Handicapped Children's Model Demonstration Projects/Postsecondary Projects (84.023G); (b) Postsecondary Demonstration Projects (84.078C); Special Projects and Demonstrations for Providing Vocational Rehabilitation Services to Severely Disabled Individuals (84.128A); and (d) Secondary Education and Transitional Services for Handicapped Youth: Models for Planning and Implementation of Transitional Services (84.158C).

Data from the analyses of each of the four competition areas ($N = 42$ projects) were aggregated by category (purpose, activities, outcomes, barriers) and organized by conceptual level (student/family, program, organization, community). Subsequently, the variables most frequently cited were identified across competitions, by level and category.

Results and Discussion

This early investigation was important for several reasons. Foremost, we applied a systems-level conceptual framework to the results reported by federally sponsored transition model demonstration projects. Second, we learned that model program directors reported many more outcomes related to their demonstrations in 42 communities across the United States than originally articulated in OSERS' request for proposals. Finally, this study paved the way for a better understanding of the need to relate certain program activities to reported outcomes.

When we compiled the activities reported by the 42 projects we found 88 activities, which varied according to their intended impact (e.g., programmatic versus organizational). Using the conceptual framework to classify these activities into those levels where they had an impact made it easier to identify commonly reported variables within and across competitions. Thus, we were able to identify the purposes, activities, outcomes, and barriers cited most frequently by the 42 projects (see Table 1). In particular, after classifying activities and outcomes, we were able to suggest to the field which activities might be undertaken to increase the chances of obtaining selected outcomes. For example, we reported that the outcome most frequently cited at the individual level by model program directors was to "Employ Individuals" and that these same directors reported "Providing Work Skills Training" as their primary activity. Unfortunately, the relationship between these and other outcomes and activities could only be implied.

Insert Table 1 about here

Another important result obtained from this study related to the shear number of activities and outcomes that were reported. For the first time, our field had access to a rich, albeit "soft," database consisting of promising practices. We recognized the importance of developing a similar list of outcomes and related activities that would have broader appeal to the diverse constituents of transition-related research. Consequently, we decided to launch the second phase of our efforts to identify specific outcomes and activities that are considered important to achieving employment. Further, we were interested in identifying the specific indicators that personnel might use to report these outcomes and activities.

Phase II: Developing Consensus on Employment Outcomes and Activities

The purpose of Phase II was to identify specific employment-related outcomes and associated activities across the four conceptual levels. Specifically, the study was designed to extend the application of the systems-levels framework for evaluating program outcomes and to develop consensus on outcomes believed important for student employment after graduation. [See Rusch, Enchelmaier, & Kohler (in press), the third article in this monograph, for a complete manuscript of this study.]

Method

An initial pool of outcomes and activities associated with employment was obtained from the list of most frequently cited variables generated in Phase I. This list was incorporated into a draft questionnaire and submitted to an expert panel of 12 model demonstration transition-to-employment project directors. Based on the panel's feedback, a final questionnaire was developed that included 22 employment-related outcomes and 65 associated activities, organized by conceptual level (i.e., student/family, program, organization, and community). The questionnaire included a 9-point Likert-type scale for rating each outcome and activity (1 = Not Important, 9 = Very Important).

Using a two-round Delphi technique, the questionnaire was sent to 167 transition-to-employment project directors who rated each outcome and activity for importance. Two months after the first mailing, a second Delphi instrument listing the mean ratings for outcomes and activities obtained during Round 1 was sent to the 167 project directors.

Results and Discussion

The consensus-building activities used in this study resulted in a list of 22 outcomes and 65 related activities. Importantly, we were able to cluster these outcomes and activities according to their intended focus of impact. Table 2 provides a complete list of the outcomes and associated activities organized according to the four conceptual levels (i.e., student/family level, program level, organization level, and community level). As shown, project directors of 167 federally funded, model transition programs in 42 states believed that the following were the five most important outcomes of employment-focused transition programs: (a) utilizing individualized education plans (program level); (b) demonstrating improved work opportunities (community level); (c) placing students into competitive, integrated employment (including supported employment) (individual level); (d) educating students alongside their nondisabled peers (individual level); and (e) documenting progress in employment-related skill areas (individual level).

These findings are important because they are the first to suggest an agreed-upon list of outcomes that may serve as a blueprint for secondary educators promoting curriculum reform. Further, these outcomes suggest that all major participants who work with students with and without disabilities may need to acquire different competencies to meet the transition-related mandates of the Individuals with Disabilities Education Act Amendments of 1990 (IDEA).

As we have continued to examine the overall relevance of these findings, we have come to recognize important linkages between particular outcomes across the various levels and their relevance to the current school restructuring discussion. For instance, not only do personnel need to be trained with new outcomes in mind, those responsible for program development must address multiple levels of outcomes in order to design more effective high school programs. To achieve employment of students (Outcome 1 at the Student and Family Level, Table 2), high schools need to plan individualized programs that: include job-skills training, assess student growth and change, and ensure provision of related services from year to year

(Outcomes 7, 8, 5, and 6, respectively, at the Program Level). Additionally, high schools must be cost-effective (Outcome 14 at the Organization Level) and impact services and opportunities within their communities (Outcomes 21 and 22 at the Community Level).

Insert Table 2 about here

This study was important also because it increased our understanding of outcomes. As we pursued this research program, we were continually reminded of our failure to consider the "bigger picture" and found that a certain degree of ambiguity skill exists related to outcomes and their activities. Consequently, we decided to pursue a more complete model of outcomes and activities and their indicators. Our expectation was that if we were able to engage the field in "defining" these outcomes and indicators, we would see a more complete transition systems-change model appear, a model emphazing the individual and family, the high school program and cooperating agencies, and the relationships that exist to promote diversity in our communities.

Phase III: Identification of Employment-Related Outcome and Activity Indicators

The purpose of Phase III was to identify potential measures for evaluating the multiple outcomes and activities thought important for promoting employment of youths with disabilities. Specifically, this study sought to extend the results of phases I and II by identifying indicators for 17 of the employment outcomes and 51 associated activities identified and socially validated during Phase II. These 17 outcomes received a mean rating of 7.00 or higher during the Delphi procedure.

Thus, the intent of Phase III was to provide the substance necessary to complete Figure 2, the organizational framework of outcomes, activities, and indicators. That is, the focus was on extending the systems-level model that featured outcomes and activities across the four conceptual levels, identifying measures to show that an outcome at a particular level had been achieved, identifying activities associated with producing the outcomes, and finally, identifying measures to indicate that an activity had taken place. [For a complete description of this phase of the investigation, see Kohler and Rusch (1993) the fourth article in this monograph.]

Method

Results from Phase II were mailed to the 167 project directors who served as the participant pool for the Delphi procedure. Fifty-three of them noted that they were interested in identifying measures for the outcomes and activities. They subsequently identified the five outcomes they were most interested in focusing on. Based on this information, participants were assigned to identify measures for specific outcomes and the activities associated with them. To facilitate data collection, the Delphi instrument was modified to include space for listing ways to measure each outcome and each activity. The five outcomes with a mean rating of less that 7.00 were not included in the instrument.

Responses were received for each of the 17 outcomes and all related activities. As responses were received, content analysis was conducted on the suggested measures. Redundant measures were removed and a comprehensive list of indicators for each outcome and activity was generated. This draft list was subsequently mailed to the initial pool of 167 project directors for feedback.

Results and Discussion

Both qualitative and quantitative indicators were submitted by the 30 project directors who participated in Phase III. For instance, qualitative measures suggested to reflect that students had been placed in competitive integrated employment (Outcome 1) included job types, description of benefits, and job patterns. Quantitative measures for the same outcome included hours worked, hourly wages, number of students placed, and student demographics.

Table 3 presents one outcome from each conceptual level, activities associated with that outcome, and suggested measures for each (see Appendix for a complete listing).

Insert Table 3 about here

This study has important implications for advancing theory and for extending a better understanding of practices related to employment. Our intent was to extend both the systems-change and the analytical models we have been studying. The systems-change model we propose recognizes the importance of multiple "players" at several levels to promote the transition of youths into the workplace. Transition from school to work requires that students receive relevant experiences in work settings that invite participation by all youths, regardless of their diversity from the mainstream. The analytical model operationalizes our "theory" into practice by providing multiple audiences with a "blueprint" that describes their roles in building the foundation for substantive change in the lives of young people who want to meet their own and others' expectations for being involved in their communities.

Related to practices, this study enjoined the participation of transition experts in an activity that invited them to acknowledge their understanding of the theoretical and practical importance of our research program. Their participation resulted in one of the most complete lists of transition strategies available. We were interested in completing our self-imposed obligation to identify indicators related to selected outcomes and activities. We gained much more: In our zeal to identify indicators, a list of strategies associated with each activity resulted. For example, the first activity listed under Outcome 6 (Utilize transition planning) suggests that we "develop strong cooperative linkages with vocational rehabilitation services to develop the IEPs." On face value, "develop strong cooperative linkages" sounds like more academic rhetoric. However, when 10 indicators were identified by the participants in this study, we learned that "cooperative linkages" relates to "Number of Agreements Signed, Number of

Consultations Documented, Participation of Personnel," and so on (see Table 3). Thus, as a result of this third study, we now possess a number of strategies (indicators) that can be utilized to implement the activity and measure whether it has taken place.

General Discussion

This investigation featured three phases: (a) an analysis of OSERS demonstrations focused on employment, (b) consensus development with respect to specific employment-related outcomes and activities, and (c) identification of employment-related outcome and activity indicators. Most importantly, we identified actual program outcomes and activities and used them as a basis for developing a conceptual framework of outcomes, activities, and indicators for promoting employment of youths with disabilities. This conceptual framework received substance from a national group of stakeholders presenting multiple perspectives. Thus, the results offer a realistic model that has the potential to serve as a blueprint for systems change.

To date, many recommendations with respect to "promising" practices related to promoting employment have been based on *implications* of research rather than research *findings* (Kohler, 1993). Thus, recommendations to districts scurrying to implement the transition-related mandates of IDEA are characterized by a great deal of rhetoric. We too have been "guilty" of advising service developers to "implement transition planning," "cooperate with community agencies," " place students into competitive integrated employment," and "improve access to community services" without offering specific strategies for doing so. Of course, implementation strategies will vary to some degree, dependent upon the resources and the context of a community. But, as a result of this investigation, we can offer a model of outcomes and activities related to promoting employment that includes a comprehensive array of strategies, or indicators. Two significant implications are inherent in this model.

First, the model can be used by those seeking to establish education and community programs that focus on employment of youths with disabilities. Again, how program builders specifically implement part or all of the model depends on the local context, but in designing new or restructuring old programs, a number of strategies are available for them to consider. In particular, the model will be useful in three phases of program development: planning, implementation, and evaluation. For planning purposes, the employment outcome model can serve as a blueprint for identifying target outcomes across multiple levels. During implementation, the activities and indicators components serve as the action plan for specific program tasks. Finally, data collection associated with selected indicators can be used to provide formative evaluation of program implementation and to provide summary information on whether or not targeted outcomes and activities have been achieved. Based upon evaluation findings, program improvement, expansion, and/or replication can be considered. Thus, such a model can empower service developers to act, evaluate, and react with respect to promoting employment for youths with disabilities.

Second, the employment outcome model can serve as a research tool for seeking substantive evidence in support of specific activities and outcomes related to employment. A number of studies have been conducted to identify the status of youths with disabilities after they have exited high school (e.g., de Bettencourt, Zigmond, & Thornton, 1989; Fardig, Algozzine, Schwartz, Hensel, & Westling, 1985; Haring, Lovett, & Smith, 1990; Hasazi, Gordon, & Roe, 1985; Mithaug, et al., 1985; Roessler, Brolin, & Johnson, 1990; Wagner, 1989). However, fewer studies have actually identified evidence that supports a direct linkage between particular practices and targeted outcomes (Kohler, 1993).

Recently, various researchers have proposed conceptual models that articulate patterns of influence among independent and dependent variables to guide investigations of relationships between student characteristics and experiences, program characteristics and contexts, and student and program outcomes (cf. Halpern, 1993; Harnisch, Wermuth, & Zheng, 1992; Wagner, 1991). Others have articulated the need for a conceptual model for developing research questions, identifying appropriate research methods, and guiding data analysis (e.g., DeStefano & Wagner, 1992; Halpern, 1990; Oakes, 1986).

The outcomes, activities, and indicators generated in this investigation provide not only the substance for program development, but also the particular independent and dependent variables that give substance to the proposed conceptual research models. Well-conceived indicators for outcomes and activities can be used to report and compare status, track changes over time, predict performance, explain conditions and changes, profile strengths and weaknesses, and inform policy and practice (DeStefano & Wagner, 1992; Haring & Breen, 1989; Oakes, 1986). Thus, the employment outcomes model developed in this investigation can be used as a basis for developing research questions relevant to employment, for articulating perceived relationships among independent and dependent variables, and for guiding data collection and analysis. Such research would not be limited to individual students, but extend to the other system levels as well (e.g., program, organization, and community). As a result, a omprehensive approach utilizing well-conceived multidimensional outcomes and activities could be undertaken. Outcomes, activities, and indicators would not only be compared within levels, but across levels as well. Further, rather than focusing the evaluation on program, organization, and community *characteristics* and their relationships to student outcomes, the investigation would expand to evaluate *outcomes* at these levels.

Program development and research must work hand-in-hand to further our knowledge about the relationships between what we provide to students through their educational experiences and what they achieve after leaving school. Program development must progress in conjunction with research focused upon program outcomes. The potential for improving secondary education in this country is within reach. To achieve this potential, we must bring together the multiple stakeholders focused on improving the adult outcomes of those youths who do not aspire to a postsecondary education in their quest to achieve employment. We propose that these stakeholders expand their perspectives to include multilevel outcomes and that they restructure the delivery of educational experiences and related services in line with these outcomes. Concurrently, we must gather specific data about what we are doing and how we are succeeding. By implementing the strategies identified in this investigation, and evaluating subsequent outcomes, we can hope to diminish the prospects of an uncertain future that face so many individuals.

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Footnotes

1. This research was sponsored in part by the Office of Special Education and Rehabilitative Services (OSERS), U. S. Department of Education, under a cooperative agreement (H158-T-00-1) with the University of Illinois. Opinions expressed herein do not necessarily reflect those of OSERS.

Table 1

Summary Table of Most Frequently Cited Purposes, Activities, Outcomes, and Barriers of 42 OSERS Funded Employment-Focused Projects

Conceptual Level	Purposes	Activities	Outcomes	Barriers
Student and/or Family	Improve Vocational Training (30)	Provide Work Skills Training (24)	Employ Individuals (24)	Parent and/or Family Resistance (8)
Program	Establish Community-Based Model Programs (9)	Implement Programs or Materials and Evaluate Effectiveness (42)	Establish Employment Training Programs or Services (17)	Personnel Issues (10)
Organization	Develop Cooperative Delivery Systems (19) Disseminate Information (14)	Enhance Interagency Collaboration or Cooperation (21) Disseminate Information (29)	Establish Cooperative Delivery Systems (18) Disseminate Information (31)	Lack of Collaboration or Cooperation (10)
Community	None Cited (40) Enhance Public Awareness or Policy (2)	None Cited (28) Conduct Public Relations Activities or Training (10)	None Cited (42)	Transportation (12)

Note. From "An Analysis of OSERS-Sponsored Secondary Special Education and Transitional Services Research" by F. R. Rusch, P. D. Kohler, and C. Hughes, 1992, Career Development for Exceptional Individuals, 15, p. 137. Copyright 1992 by the Division on Career Development and Transition of the Council for Exceptional Children. Reprinted by permission.

Table 2

Mean Rating Values for 22 Employment Outcomes and Associated Activities

Outcome Number	Activity Number	Description	Mean Round 1	Mean Round 2
Student and Family Level				
1		Model transition-to-employment projects must place students into competitive, integrated employment (including supported employment).	8.28	8.40
	1.1	Provide job placement services.	7.91	7.85
	1.2	Work with adult service agencies to ensure job placement.	7.66	7.72
	1.3	Provide job exploration and job-training opportunities as part of the school curriculum to prepare students for competitive employment.	8.25	8.50
	1.4	Provide job support services.	8.09	8.27
	1.5	Provide the technical assistance to adult service agencies to provide job placement and job support services.	6.88	6.55
2		Model transition-to-employment projects should demonstrate functional skill development of students.	8.04	8.09
	2.1	Use instruments and procedures that identify individual functional skills and consumer preferences and life goals.	7.51	7.66
	2.2	Develop individualized objectives for students that reflect functional skill development in the domains of vocational skills, independent living, and community integration.	8.09	8.32
3		Model transition-to-employment projects should ensure that students experience education or training with nondisabled peers.	8.29	8.39
	3.1	Conduct training activities for youths without disabilities as well as for those with disabilities.	6.47	6.28
	3.2	Utilize integrated competitive and supported employment placements.	8.59	8.68
	3.3	Utilize nonpaid volunteer placements in compliance with Department of Labor (DOL) standards.	6.51	6.31
	3.4	Utilize community-based education and training sites.	8.26	8.47

Outcome Number	Activity Number	Description	Mean Round 1	Mean Round 2
Program Level				
4		Model transition-to-employment projects should upgrade the skills of professionals and paraprofessionals to licensing standards at their local equivalent.	6.65	6.08
	4.1	Train vocational counselors.	6.76	6.41
	4.2	Train job coaches.	7.64	7.48
	4.3	Provide inservice training for secondary and postsecondary teachers including job developers, resource teachers, and vocational educators.	8.04	8.08
	4.4	Train instructors on community, functional skill-based curriculum and instructional methods.	7.74	7.84
5		Model transition-to-employment projects should publish reports of their students' documented progress.	7.12	7.39
	5.1	Develop a final report for students and their families.	6.87	6.83
	5.2	Utilize Individualized Education Plans (IEPs) as the basis for publishing reports.	5.71	5.52
	5.3	Conduct a longitudinal study of graduates and report these data.	7.50	7.61
6		Model transition-to-employment projects should be continued beyond the federal funding period.	8.25	8.41
	6.1	Identify alternative funding from other agencies to continue the project.	7.92	8.08
	6.2	Develop funding from within local special education program budget for transition-to-employment projects.	7.99	7.93
7		Model transition projects should utilize individualized transition planning for students with disabilities.	8.45	8.77
	7.1	Develop strong cooperative linkages with vocational rehabilitation services to develop IEPs.	7.85	7.98
	7.2	Develop strong cooperative linkages with vocational education services to develop IEPs.	7.55	7.74

Outcome Number	Activity Number	Description	Mean Round 1	Mean Round 2
8		Model transition-to-employment projects should provide job-skill training.	7.76	8.01
	8.1	Conduct job-skill analysis.	7.53	7.90
	8.2	Develop a curriculum to facilitate training.	7.12	7.36
	8.3	Determine labor-market needs.	7.45	7.41
	8.4	Identify job skills that employers require of their employees.	8.03	8.32
9		Model transition-to-employment projects should document student progress in employment-related skills (e.g., social skills).	8.10	8.34
	9.1	Undertake social skills assessment of students.	7.32	7.54
	9.2	Provide on-site community-based training in employment-related social skills.	7.85	8.02
	9.3	Assess student progress in job-related skills.	8.06	8.24
10		Model transition-to-employment projects should achieve replication at least at the level of full utilization of a project feature, component, or product (such as a training manual).	7.33	7.40
	10.1	Negotiate directly with an organization or agency to replicate the model project.	6.54	6.42
	10.2	Develop and disseminate replication manual(s).	7.05	7.01
	10.3	Disseminate information and products to other agencies.	7.61	7.73
11		Model transition-to-employment projects should establish employment support services.	7.77	7.65
	11.1	Train job coaches.	7.39	7.56
	11.2	Provide co-worker training.	7.09	7.41
	11.3	Utilize vocational rehabilitation counselors as appropriate.	7.29	7.75

Outcome Number	Activity Number	Description	Mean Round 1	Mean Round 2
	11.4	Educate employers about benefits of hiring people with disabilities.	7.75	8.08
	11.5	Train and utilize job developers	7.60	7.66
12		Model transition-to-employment projects should develop curricula.	6.43	6.38
	12.1	Conduct an analysis of job coach roles.	6.14	6.26
	12.2	Employ personnel with curricula-writing skills.	5.36	5.28
	12.3	Review existing curricula to determine if new curricula are needed.	6.76	6.76
	12.4	Conduct needs assessment to determine curricular needs.	6.60	6.51
Organization Level				
13		Model transition-to-employment projects should develop materials to facilitate replication (e.g., replication guides, training manuals, assessment instruments).	7.29	7.12
	13.1	Allocate a section of the project budget to publication and production costs.	7.26	7.20
	13.2	Identify production priorities initially and monitor throughout the life of the project.	6.90	6.76
14		Model transition-to-employment projects should demonstrate cost effectiveness.	7.45	7.72
	14.1	Record all real costs of project activities.	7.77	7.90
	14.2	Record effectiveness measures such as time allocated to training and quality-of-life measures.	7.57	7.80
15		Model transition projects should disseminate information about their projects by producing a product at least at the level of an article for the popular press.	7.13	7.29
	15.1	Employ a project director with a commitment to disseminate information at least at this level.	7.32	7.33

Outcome Number	Activity Number	Description	Mean Round 1	Mean Round 2
	15.2	Require all workers to keep accurate records of all service and other activities conducted by the project.	7.31	7.54
Community Level				
16		Transition-to-employment projects should develop and document a formal interface between education and community services (e.g., between schools and state vocational rehabilitation agencies).	7.72	7.95
	16.1	Conduct workshops to train personnel.	7.23	7.40
	16.2	Communicate needs of project consumers to community agency personnel.	7.90	8.06
	16.3	Document meetings between education professionals and professionals/paraprofessionals outside of education.	7.13	7.14
17		Model transition-to-employment projects should accept responsibility for forming a state, local, or regional taskforce to achieve coordinated leadership and direction of a model project.	6.41	5.95
	17.1	Negotiate directly with administrators from community agencies.	6.59	6.62
	17.2	Conduct public relations programs for targeted audiences, such as employers, careproviders, and agencies.	6.97	6.63
18		Model transition-to-employment projects should develop and document a cooperative service delivery model when more than one agency is providing consumer services.	7.30	7.54
	18.1	Articulate the roles of all associated agencies.	7.37	7.59
	18.2	Employ personnel whose role is to coordinate project activities.	7.00	7.13
	18.3	Document services provided by cooperating agencies.	7.01	7.05
19		Model transition-to-employment projects should establish and document employment referral services.	6.19	6.17
	19.1	Operate a database for employer and consumer matching.	5.81	5.49
	19.2	Conduct and publish regular analyses of job-market trends.	4.91	4.63

Outcome Number	Activity Number	Description	Mean Round 1	Mean Round 2
20		Model transition-to-employment projects should produce expanded rehabilitation services.	6.64	6.44
	20.1	Document student (client) experiences with rehabilitation (education) agencies.	6.65	6.62
	20.2	Develop cooperative activities with rehabilitation (education) agencies.	7.47	7.60
21		Model transition-to-employment projects should demonstrate improved access to community-based services for persons with disabilities.	7.90	8.13
	21.1	Document the number of students in the project served by community agencies.	7.72	7.82
	21.2	Conduct outreach activities such as seminars and workshops for community agency personnel.	7.52	7.56
	21.3	Conduct technical assistance services to center-based agency personnel to foster conversion to community-based services.	7.30	7.31
22		Model transition-to-employment proejcts should demonstrate improved work opportunities for youths with disabilities.	8.43	8.67
	22.1	Evaluate and document effectiveness of job placement and maintenance activities.	8.17	8.56
	22.2	Research job trends and business requirements.	6.67	6.45
	22.3	Work cooperatively with community agencies to conduct longitudinal studies.	7.39	7.41

Note. From "Employment Outcomes and Activities for Youths in Transition " by F. R. Rusch, J. F. Enchelmaier, and P. D. Kohler, in press, Career Development for Exceptional Individuals, Copyright by the Division on Career Development and Transition of the Council for Exceptional Children. Reprinted by permission.

Table 3

Indicators of Selected Outcomes and Activities Across Four Conceptual Levels

NUMBER	DESCRIPTION
INDIVIDUAL/FAMILY LEVEL	
Outcome 1	**Model transition-to-employment projects must place students into competitive, integrated employment (including supported employment).** **Indicators** • Hours worked • Hourly wages • Number of students placed • Student demographics • Job types • Length of employment (days, weeks, months) • List of benefits (i.e., medical, vacation, sick time, profit sharing) • Number of jobs held prior to graduation and summary of evaluations of each placement • Annual salary • Number of full-time and part-time positions • Job patterns (e.g., never changed, voluntary change, laid off, quit, etc.) • Student satisfaction measures • Termination, reason (elaborate) • Record of how job was initially obtained and by whom • Number of employees at each business • Number and ratio of employees without disabilities on site when student present • Record of job match to student-stated work interests • Record of job advancement following initial placement -- increased job responsibilities or increased wages (e.g., in hrs worked, raises, promotions, job task responsibilities; increased level of indispensability to employer) • Documentation of single-subject research study • Reduction in public assistance (e.g., SSI, workers comp, public aid, etc.)
Activity 1a	**Provide job placement services.** **Indicators** • Potential Employer Contact Log (# of entries) • Number of potential employers • Number of student interviews • Number of placements • Types of placements • Number of potential employees • Identification of natural supports in each placement • Documentation of a specific "marketing" plan for each student • Student/family job preferences • Number employers contacted and method • Number student interviews, alone or assisted • Number of successful and unsuccessful placements and whether placement was in the top-priority list of student or family • Trainee waiting lists for placement • Number of placements per student

NUMBER	DESCRIPTION
Activity 1b	**Work with adult service agencies to ensure job placement.** Indicators • Signature of adult service representatives on each IEP • Record or letter of interagency agreement • Referral documentation • Number of meetings and frequency • Record of joint projects (i.e., Job Fair) • Record of business involvement with adult service agencies • Identification of roles adult service agencies play in job placement • Log of case management activities by type and frequency • Record of transition plan updates with adult service agencies • Written statement of percent time commitment to student and family that will occur at age 21 • Number of meetings of adult agencies with school personnel and/or student/family • Written progress reports on placement efforts • List of transition team members
Activity 1c	**Provide job exploration and job training opportunities as part of the school curriculum to prepare students for competitive employment.** Indicators • Number of days training in community (unpaid) per week • Number of days paid work per week • Hours worked during school day • Record of training and employment sites • Record of peer job coaching • Record of gifted and talented student support • Record of all school personnel involved in curriculum • Number of hours • List of job exploration sites, general and specific purposes for each site, competencies gained per student during exploration, number of hours in job exploration, and type of site • Performance data per student • Data on level of supervision • List of products produced and quantity (e.g., student resumes, training plans, or work profiles) • Number of training sites per student • Documentation of individualized training programs for students that reflect systematic instruction and strategies • Baseline and probe data pertaining to training • Graphs of student performance • Documentation of types of instruction or training provided

NUMBER	DESCRIPTION
Activity 1d	**Provide job support services.** Indicators • Number of training hours provided by teacher • Number of hours teacher present at employment site • Record of off-site support provided by teacher • Number of observation hours provided by teacher • Record of support provided by others (i.e., job coaches, voc. rehab. counselors, job developers) • Number of hours by school personnel other than teachers • Record of support provided by parents • Record of support provided by employer or supervisor • Contacts with family • Hours and type of school-based job-related instruction • Record of data-based fading against targeted performance criteria • Number of employee evaluations done by employer per month • Record of support provided by co-workers • Record of unusual incidents and training interventions • Record of training strategies and procedures • Record of data collection documenting skill acquisition
Activity 1e	**Provide technical assistance to adult service agencies to provide job placement and job support services.** Indicators • In-service workshop hours directed toward teaching job-placement and support techniques • Hours of direct training provided to job coaches on the job • One-to-one contact (contact logs) • Evidence of curriculum used • Type of training and technical assistance activities provided • Record of funds spent to train adult service providers • Workshop or inservice evaluation data • Needs assessment data • Number of people trained • List of training materials developed

NUMBER	DESCRIPTION
PROGRAM LEVEL	
Outcome 6	**Model transition projects should utilize individualized transition planning for students with disabilities.** **Indicators** • Number of plans developed • Number of plans completed • Written documentation of transition services as part of IEP • Record of number of transition planning meetings • Signatures of adult service providers and community agency personnel on IEP • Compilation of types of transition outcomes for students on annual basis • Results of parent or family survey of planning process • Evidence from student files illustrating program modifications to meet student's individualized transition needs • List of agency representatives participating in planning • Number of transition objectives in IEP • Documentation of assessment information utilized in plan development • Documentation of parent involvement in planning • Documentation of student involvement in planning • Documentation that service or curricular activities were provided as stated in the student's plan • Evidence of curriculum that facilitates student involvement in planning
Activity 6a	**Develop strong cooperative linkages with vocational rehabilitation services to develop the IEPs.** **Indicators** • Number of agreements developed • Number of consultations • Documented participation of personnel • Signature of vocational rehabilitation personnel on IEP • Record of contacts between vocational rehabilitation and student • Report of number of students receiving services from vocational rehabilitation • Letters of agreement • Documentation of joint use of information (e.g., school records, assessment information, medical data) • Evidence of referral system or process • Documentation of services provided to students

NUMBER	DESCRIPTION
Activity 6b	**Develop strong cooperative linkages with vocational education services to develop the IEPs.** **Indicators** • Record of agreement(s) developed • Number of joint activities, meetings, or consultations • Record of actual participation in IEP development • Signature of vocational education personnel on IEPs • Report of number of goals or objectives contained in IEP carried out by or in conjunction with vocational education • Record of vocational education contact with families • Vocational education services identified on IEP • Record of attendance at meetings • Record of interagency agreements • Record of student enrollment in vocational curricula • Record of vocational education services provided • Evidence of collaborative consultation between voc ed and special ed

ORGANIZATION LEVEL

NUMBER	DESCRIPTION
Outcome 15	**Transition-to-employment projects should develop and document a cooperative service delivery model when more than one agency is providing consumer services.** Indicators • Number of agencies providing services • Organizational structure for service provision • Interagency agreement(s) • Record of referral among agencies
Activity 15a	**Articulate the roles of all associated agencies.** Indicators • Evidence of a process for developing of collaborative agreements • Documentation of collaborative agreements • Documentation of contractual arrangements • Evidence of a process reviewing roles on a regular basis • Number of formal operating agreements • Number of informal operating agreements • Evidence of networking effectiveness • Evidence of a designated "coordinating" agency to oversee local agencies • Number or existence of state laws or regulations reducing barriers to agency collaboration or articulating collaborative roles • Documentation of services provided by and efforts of each agency
Activity 15b	**Employ personnel whose role is to coordinate project activities.** Indicators • Job description of project coordinator or manager • Evidence of a "coordinating" agency to oversee local agencies • Documentation of state and local funds earmarked to support coordinating agency in this task • Evidence of agency and project funding of personnel
Activity 15c	**Document services provided by cooperating agencies.** Indicators • Record of employment services provided by type and by student • Record of community living facilities and/or services provided • Record of transportation arrangements and services • Assignment of coordinating personnel, agency, or local planning councils to collect specific data on services offered, clients, costs, etc. • Analysis of data collected for future decision making • Case history of clients • Number and type of activities completed by caseworkers • Evidence of a process for evaluating accountability of cooperating agencies

NUMBER **DESCRIPTION**

COMMUNITY LEVEL

Outcome 17 **Model transition-to-employment projects should demonstrate improved work opportunities for youths with disabilities.**

Indicators
- Record of types of jobs that comprise placements
- Statistics pertaining to wages, benefits, and hours
- Percent of graduating class employed by level of employment (i.e., full-time, part-time)
- Percent employed at or above minimum wage
- Percent who move to improved work situations (e.g., promotions, job changes for increased salary, benefits, working hours, etc.)
- Percent who lose jobs and/or move to "poorer" jobs
- Number of employers associated with project or program
- Number of students employed first year of project compared to subsequent years

Activity 17a **Evaluate and document effectiveness of job placement and maintenance activities.**

Indicators
- Length of time on job
- Employee satisfaction data concerning job placement, pre-/post- project
- Employer satisfaction data concerning job placement, pre-/post- project
- Documented opportunities for advancement
- 1-, 3-, 5-year follow-ups on youths:
    1. Employed in jobs for which training was provided; in jobs for which training was not provided
    2. Employed but changed job (up and down) in job trained; not in jobs trained
    3. Unemployed; never employed; previously employed
- Data on youths employed and wages, benefits, length of employment, pre-/post-project
- Data on family satisfaction with job placement, pre-/post- project
- Data on employer willingness to hire, pre-/post- project

Activity 17b **Research job trends and business requirements.**

Indicators
- Record of project or employer advisory committee, members, meetings
- Labor-market surveys:
    Stable employment opportunities
    Potential increased employment opportunities
    Decreasing employment opportunities
    Dead-end employment
    Career ladder employment
    Job requirements

NUMBER	DESCRIPTION
Activity 17c	**Work cooperatively with community agencies to conduct longitudinal studies.** Indicators • Assess student outcomes: employment, community living, recreation, etc. • Assess quality of life via self rating or reliable informant • Follow-up data on individuals who change agencies • Evaluation data pertaining to working relationship between agencies and project • Record of agreements detailing longitudinal studies to be conducted and roles of participants • Documentation of funding source • Evidence of research design for study

Note. From "School to Work Transition: Identification of Employment-Related Outcome and Activity Indicators" by P. D. Kohler and F. R. Rusch, 1993, Transition Research Institute, University of Illinois (submitted for publication). Reprinted by permission.

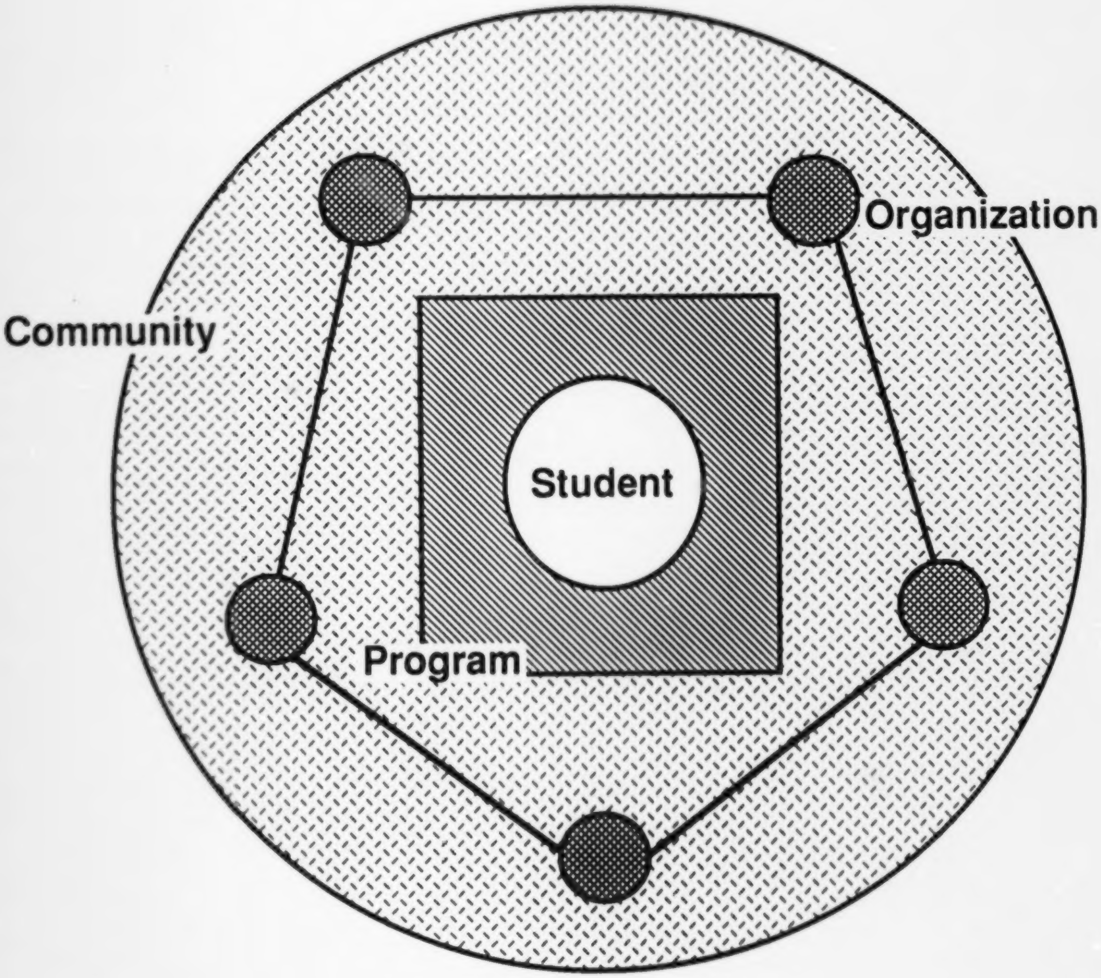
Organization
Community
Student
Program

Figure 1. Systems-level conceptual framework for evaluating program activities and outcomes.

Note. From "School to Work Transition: Identification of Employment-Related Outcome and Activity Indicators" by P. D. Kohler and F. R. Rusch, 1993, Transition Research Institute, University of Illinois (submitted for publication). Reprinted by permission.

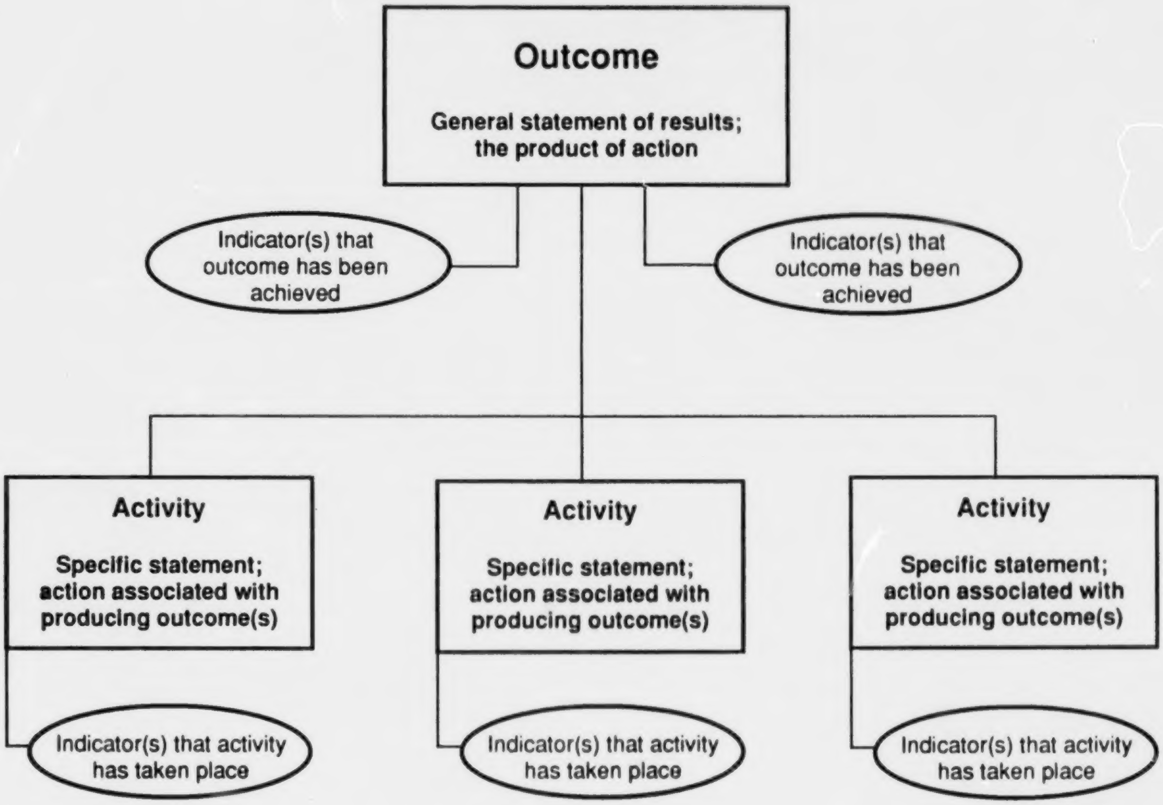
Outcome
General statement of results; the product of action
Indicator(s) that outcome has been achieved
Indicator(s) that outcome has been achieved
Activity
Specific statement; action associated with producing outcome(s)
Activity
Specific statement; action associated with producing outcome(s)
Activity
Specific statement; action associated with producing outcome(s)
Indicator(s) that activity has taken place
Indicator(s) that activity has taken place
Indicator(s) that activity has taken place

Figure 2. Analytical model illustrating perceived organizational relationship between an outcome, activities, and indicators.

Note. From "School to Work Transition: Identification of Employment-Related Outcome and Activity Indicators" by P. D. Kohler and F. R. Rusch, 1993, Transition Research Institute, University of Illinois (submitted for publication). Reprinted by permission.

Chapter Two

An Analysis of OSERS'-Sponsored Secondary Special Education and Transitional Services Research[1]

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Running Head: SECONDARY SPECIAL EDUCATION

Career Development for Exceptional Individuals, 15, 121-143.

Abstract

The purpose of this investigation was to aggregate the findings from five OSERS'-funded competitions dealing with transition from school to work or postsecondary education. Data from 42 employment-focused and 22 education-focused projects were included. Areas of analysis included the degree to which projects aligned themselves with OSERS' stated purposes; the relationship between project purposes, activities, and outcomes; and the barriers most frequently cited. An analytic model was applied to examine process and outcome variables within and across competitions at multiple levels of influence in the "community." Results indicated that (a) project emphases have been directed at one or two specific levels of influence; (b) of the 64 total projects, 53 cited at least one OSERS-stated purpose; (c) employment-related projects generally have focused on providing community-based vocational training and employment services, delivered through cooperative arrangements; (d) education-related projects have focused on postsecondary support services and programs, delivered cooperatively; and (e) the most frequently cited barriers to program effectiveness were parent or family resistance, personnel issues, and lack of collaboration.

An Analysis of OSERS'-Sponsored Secondary Special Education and Transitional Services Research

Any examination of the explanations offered for the poor post-school adjustment of youths with disabilities reveals a number of economic, educational, vocational, societal, and personal variables. Emerging theories emphasize the inadequacies of the schools and the personal and social skills deficits of these youths as the reasons for their poor adjustment. Until recently, however, no systematic attempt has been made to understand why many youths with disabilities fail to adjust successfully in adult life and to participate fully in American society.

A federal initiative to facilitate the transition of youths with disabilities to employment was launched when Congress passed the 1983 amendments to the Education of the Handicapped Act of 1975. On December 2, 1983 the Education of the Handicapped Act Amendments of 1983 was enacted as P.L. 98-199. This law signaled a shift in special education policy toward providing post-public educational services; specifically, services that would enhance the transition from school to work or postsecondary education for youths with disabilities (Snauwaert, in press). This shift in focus was most apparent in the amendments authorizing the use of discretionary monies under Part C, whereby Congress authorized over 5 million dollars annually for fiscal years 1984 through 1986 to carry out the provisions of Section 625, "Postsecondary Education Programs," and over 6 million dollars annually for grants under Section 626, "Secondary Education and Transitional Services for Handicapped Youth."

Most of the discretionary monies was used to fund over 100 model projects between 1984 and 1990. In general, these projects were to develop innovative service systems that would enhance the attainment of postsecondary outcomes, such as independent living, postsecondary education or training, and competitive employment among graduates of secondary special education. As models, these projects also were expected to demonstrate the effectiveness of their program components and to conduct dissemination activities that would allow for replication. Thus, through these projects, the U.S. Office of Special Education and Rehabilitative Services (OSERS) attempted to identify quality indicators and outcomes indicative of effective transition programs.

This investigation aggregated the findings from five competitions focusing upon transition to work or postsecondary education in an effort to identify these quality indicators and outcomes. Areas of analysis included the following: (a) examining project variables across competitions based on the conceptual framework introduced by Rusch and Phelps (1987); (b) determining the degree to which projects aligned themselves with OSERS'-stated purposes as outlined in competition announcements; and (c) examining relationships between project purposes, activities, and outcomes, including identification of those barriers most frequently cited by model projects.

Rusch and Phelps (1987) posited that multiple systems of influence operate within the context of a "community," including (a) the student and family, who are often the focus of the proposed intervention; (b) the model program, which is most often established as a service entity and typically is responsible for implementing the intervention; (c) the agencies that collaborate with the model program to form an organizational structure in which all communication and services are coordinated; and (d) the community, which includes the myriad generic services we often take for granted as defining our communities (e.g., transportation, medical services, recreational programs).

- -

Insert Table 1 about here

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The conceptual levels are depicted in Table 1. Introduction of the conceptual framework described by Rusch and Phelps (1987) into the analysis of transition competitions results in a multisystem perspective, which facilitates the examination of project purposes, activities, outcomes, and barriers. Such an approach addresses category variables within and across levels, thereby recognizing the importance and interrelatedness of each system.

One recognized shortcoming of transition-related research has been the lack of evidence linking various student experiences or processes with particular outcomes. Utilization of a multisystem approach offers one initial framework with which to examine variables within these categories. If, as Rusch and Phelps (1987) contended, such systems interact to affect student development and outcomes, a better understanding of program variables should result.

Method

OSERS Competitions

P.L. 98-199 authorized the Office of Special Education Programs (OSEP) to request proposals in three areas: (a) Service Demonstration Models (84.158A), (b) Cooperative Models for Planning and Developing Transitional Services (84.158B and 84.158C), and (c) Demonstrations in Postsecondary Education (84.078B and 84.078C). In addition, OSEP funded model projects under two competitions related to secondary transition services, Youth Employment Projects (84.023D) and Postsecondary Projects (84.023G). Finally, the Rehabilitation Services Administration awarded five grants for Transition from School or Institution to Work Projects (84.128A) under funds authorized by Section 311 of P.L. 93-112.

In this investigation, five competitions funded by OSERS were studied. Individual competitions focused on (a) effective techniques and methods for helping youths with disabilities make the transition from public schools to postsecondary education or employment (84.158C); (b) the continuing educational needs of students with mild disabilities (84.078B); (c) postsecondary education programs (84.078C); (d) transition from school or institution to work (84.128A); and (e) providing individuals with disabilities the skills they need for productive work (84.012G). Outlined in Table 2, these competitions are more fully described below.

Cooperative Models for Planning and Developing Transitional Services (CFDA 84.158C). The purpose of this competition was to support projects to plan and develop cooperative models among state and local education agencies and adult service agencies designed to meet the service needs of students as they departed from school. Specifically, funded projects were to develop (a) formal working agreements between state and local educational and service agencies that would result in youth entering competitive or supported employment, (b) unique methods of ensuring placement and continuing education and training programs, (c) multiple support-systems education, and (d) cooperative programs with Projects with Industry.

Demonstration Projects for Mildly Mentally Retarded and Learning Disabled (CFDA 84.078b). Primarily, this competition was established to stimulate institutions of higher education to compete in developing more continuing education programs for persons with disabilities. Therefore, funded projects were to develop, operate, and disseminate postsecondary, vocational, technical, continuing, or adult education model programs.

Postsecondary Education Programs for Handicapped Persons - Demonstration Projects (CFDA 84.078C). Projects in this competition were intended to facilitate the development, operation, and dissemination of specially designed programs involving postsecondary, vocational, technical, continuing, or adult education of individuals with disabilities. Priority was placed on integrating the education of students with disabilities with their nonhandicapped peers. Model program outcomes included both continuing education and employment.

Special Projects and Demonstrations for Providing Vocational Rehabilitation Services to Severely Disabled Individuals (CFDA 84.128A) (Priority Three), "Transition from School or Institution to Work." The primary purpose of this competition was to establish comprehensive rehabilitation programs in an effort to improve rehabilitation services for persons with severe disabilities. The competition sought to fund projects that proposed to develop the optimal vocational outcome. Interagency cooperation was expected to include appropriate community agencies.

Handicapped Children's Model Demonstration Project: Postsecondary Projects (CFDA 84.012G). This competition supported new programs that served persons who were not ready for competitive employment, but needed additional community-based training and related services. Specifically, a primary focus was on establishing programs that demonstrated the effectiveness of newly conceived educational models, which were to be replicated in part or in their entirety in other communities.

Table 2 displays each competition area, the number of grants awarded (expired), and the percent of final reports received. Also, the funding periods and intent of each competition are listed.

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Insert Table 2 about here

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Procedure

Routinely, analyses of transition-related competitions are conducted by Transition Institute staff at the University of Illinois. Data from these analyses are subsequently entered into a dBase file and organized according to demographics, project purposes, project activities, project outcomes, and barriers. Demographics are those variables used to describe the model projects, including information descriptive of the target population and the primary grantee. Project purposes, in turn, include both those purposes specified by OSERS for the grant competition and those cited by project directors in their proposals. Project activities refer to activities suggested by OSERS in the request for proposals (RFP) for a particular competition. In addition, activities cited by project directors in their proposals are also included. Project outcomes include those specified by the OSERS' Request for Applications as standard expectations, as well as outcomes achieved by individual projects. Finally, barriers include factors cited by project directors as reasons for failure to achieve program goals.

The data on 64 model projects contained in the dBase files from these analyses were aggregated. However, because projects focusing on employment outcomes utilized different process variables and achieved different outcomes than projects focusing on postsecondary education services, projects and competitions were separated into two groups based on their primary focus (a) employment (84.158C, 84.128A, 84.023G, and 84.078C; total number of projects = 42) or (b) postsecondary education (158C, 84.078B, and 84.078C; total projects = 22). After this categorization, the most frequently cited variables were identified within each competition, by level. Table 3 presents an overview of the procedures involved in the analysis, including associated reliability procedures for each step.

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Insert Table 3 about here

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Results

Demographics

Almost one third of all model projects across the five competitions were located in the Northeast (N = 21), followed by the Midwest and Southeast (N = 15 and 10, respectively) (see Table 4). One half of the primary grantees were universities (N = 32), followed by private not-for-profit agencies (N = 15) and local education agencies (N = 6). Over two-thirds of the model projects were funded within the $50,000 to $100,000 range annually. Finally, 37% of the projects were funded for two years; 52% for a three-year period.

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Insert Table 4 about here

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Over 90% of all projects reported working with cooperating agencies except those under competition 84.078B, in which the primary grantees were almost entirely comprised of institutions of higher education. Cooperating agencies were vocational rehabilitation and local education agencies. Within each competition, projects reported serving more than one type of disability, the majority serving persons with learning disabilities and mental retardation. With the exception of one project under competition 84.128A, which served only children age 13 years and under, most projects served a range of ages; the majority of individuals were between 16 and 25 years, however, 29 projects reported serving individuals over the age of 25.

Conceptual Framework

This investigation sought to apply a systems-level conceptual framework to examine project variables across competitions. By allowing for organization of the large number of variables examined, the framework was particularly useful in both the analysis of congruence between OSERS'-stated purposes and purposes cited by individual projects and identification of the most frequently cited variables in all categories. For example, when data from all competitions were originally aggregated, 88 activities emerged. Classifying these activities into the conceptual levels where they had an impact made it easier to identify common variables within and across competitions. Further, assigning variables to levels also facilitated identification of the most frequently cited variables per category and aided the analysis of the relationships between most frequently cited variables across the categories (purposes, activities, outcomes, and barriers).

Congruence Between OSERS'-Stated Purposes and Individual Project Purposes

During the original competition analyses, Institute researchers observed that purposes other than those included in the OSERS' request for applications were cited by projects. Hence one area of focus in the current investigation with respect to purposes was the determination of congruence between purposes cited by projects and those stated by OSERS. Analysis of the data revealed that of the 64 projects, 53 cited at least one OSERS'-stated purpose. Most of these purposes, as well as additional purposes cited, were at the Student and/or Family, Program, and Organizational levels. Only one competition, 84.078B, cited an OSERS'-stated purpose at the Community level. Further, twice as many additional purposes were cited by projects than originally stated by OSERS, suggesting that projects envisioned additional purposes as necessary for model program implementation. Across all levels, 22 OSERS' purposes (8 at Student and/or Family, 6 at Program, 7 at Organization, 1 at Community) were cited. An additional 44 purposes (13 at Student and/or Family, 13 at Program, 12 at Organization, 6 at Community) were cited by individual projects. Table 5 outlines the OSERS'-

stated purposes as well as the additional purposes cited by employment and education-focused projects, respectively.

Although some congruence was found between project-cited and OSERS'-stated purposes, many other purposes were articulated. The five competitions analyzed were among the first of the OSERS'-funded transition competitions. Arguably, model program developers may have envisioned a wider variety of purposes needed to accomplish the primary purpose stated by OSERS, which may have been a "minimal expectation." Finally, it is possible that in the early days of transition funding and project development, neither OSERS nor the model projects had clear visions of what could be achieved during the funding period.

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Insert Table 5 about here

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Most Frequently Cited Variables and Relationships Between Variables

Employment projects. Table 6 summarizes the most frequently cited variables within each category and by level for the 42 employment-focused projects. Examination of the data by level reveals process relationships between categories within levels. For instance, at the Student and/or Family Level, "To improve vocational training" was most frequently cited as a project purpose (30 projects). Correspondingly, the "provision of work skills training" as an activity was cited by 24 projects. Next, "employment of individuals" was cited as an outcome achieved (24 projects). Finally, "parent or family resistance" was cited by 8 projects as a barrier to achieving project implementation or anticipated outcomes. Overall, for this group of projects, there appears to be a relationship between purposes, activities, outcomes, and barriers at the student and/or family level. In short, model programs sought to improve vocational training by providing skill training, resulting in employment, which, in some cases, was resisted by parents.

Although there appeared to be a connection between categories, the relationships between category variables at the Program and Organizational levels were not as obvious as at the Student and/or Family level. For example, at the Program level, "implement programs or materials and evaluate effectiveness" was cited as an activity by 42 projects, whereas the "establishment of employment training programs or services" was cited as an outcome by 17 of the projects. At the Organizational level, "dissemination of information" was cited as both an activity and an outcome by 29 and 31 projects, respectively.

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Insert Table 6 about here

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Table 7 displays the variables that were grouped together to form the most frequently reported variable in Table 6. For example, "Improve vocational training" in Table 6 (most frequently cited purpose at the Student and/or Family Level) included such variables as "vocational adjustment of persons with severe disabilities," "community-based employment training and services," "improve work opportunity," "provide work experience," and "provide vocational education or training." After inspecting variables within each category, those that were similar were grouped to facilitate the examination of project purposes, activities, and outcomes. Barriers were not grouped however; the summary variable for barriers listed in Table 6 also represents the variable most frequently cited by projects.

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Insert table 7 about here

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Education projects. The purposes, activities, outcomes, and barriers most frequently cited by the 22 education projects are reported by level in Table 8. As with the employment-focused projects, a relationship seemed to exist between variables across categories at a specific level. For example, at the Organizational level, summary variables for each category included "develop and implement cooperative models," "interagency collaboration or referral," "dissemination of information," and "lack of collaboration."

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Insert Table 8 about here

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Table 9 outlines the variables that were grouped together to form the most frequently reported variables in Table 8. Outcomes and barriers are not represented in Table 9, as those variables listed as the summary variable appear as cited by projects.

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Insert Table 9 about here

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Discussion

The examination of variables in this investigation leads to several conclusions about the foci of the initial OSERS'-funded transition projects. First, project emphases have centered around the Student and/or Family, Program, and Organizational levels, with little activity directed at the Community level by either employment or education-focused projects. Yet, this level is recognized as an area where change must occur in order to facilitate lasting improvements in the postsecondary status of youths with disabilities (Hanley-Maxwell, Rusch, & Rappaport, 1989; Rusch, DeStefano, Chadsey-Rusch, Phelps, & Szymanski, 1992; Rusch & Mithaug, 1985). In both education- and employment-focused projects, no outcomes were reported at the community level, although some activities had been conducted. At the community level, transportation barriers appeared to impede the attainment of project goals or implementation (n=12).

Also, many of the model programs focused only on one or two specific levels. An ecological perspective suggests that the multiple levels of influence interact and together impact outcomes (Bronfenbrenner, 1977; Rusch & Mithaug, 1985). In discussing such a perspective, Hanley-Maxwell et al. (1989) contended that the multi-level approach to understanding human development is necessary. This perspective recognizes an interdependent, complex relationship between various systems and levels of systems that affect the individual (Bronfenbrenner, 1977; Rusch & Mithaug, 1985). It would, therefore, seem prudent to address issues within and across conceptual levels when developing model programs. At the Community level, for example, issues such as the availability of transportation, access to generic services, and media and community views concerning persons with disabilities might either inhibit or facilitate positive outcomes sought by youths with disabilities. An expanded analytical model would address community issues such as industrial climate, labor-market trends, and cultural, religious, and institutional patterns. For example, Hanley-Maxwell et al. (1989) suggested class advocacy and grassroots political action as means to affect institutional change at the community level.

The application of a systems-level approach facilitated an organized examination of a large amount of data, which provided a framework for assessing model programs' purposes, activities, outcomes, and barriers. Additional research, based upon many more cases, should be undertaken to corroborate the findings of the present investigation. Further, efforts should be made to quantify these variables, to allow for comparisons of model program results.

Identification of the most frequently-cited category variables, by level, revealed the emphasis of the initial OSERS'-funded transition projects. As mentioned, for the employment-focused projects, this emphasis was often directed at community-based, vocational training and employment services, delivered through cooperative arrangements. For the education projects, in turn, the focus was on postsecondary support services also delivered cooperatively.

Interestingly, barriers to attainment of project goals have centered around the various people involved, with the exception of the students themselves. This finding is particularly important since results of recent research suggest that employment failure is attributed to student ability (Heal, Copher, DeStefano, & Rusch, 1989). In contrast, for the employment-focused projects at the Student and/or Family level, parent or family resistance was seen as the primary barrier to goal attainment. In both education and employment-focused projects, personnel issues and a lack of collaboration were the main barriers to program effectiveness at the Program and Organization levels. In terms of personnel preparation, individuals involved with transition appeared to have very different conceptions about providing services which interacted negatively with overall interagency collaboration.

General Discussion

Several implications may be drawn with regard to policy. First, attention may need to be directed at Community-level factors, while continuing the emphasis on facilitating changes at the other conceptual levels (i.e., Student and/or Family, Program, and Organizational). Such attention may take the form of funding priorities for establishing research programs or model projects to determine effective strategies for implementing change and removing or circumventing barriers at the Community level. Second, researchers and model project developers should be encouraged to address transition issues at all levels of influence when designing either education or employment programs for youths with disabilities. Third, persons involved in transition planning and program development should be stimulated to utilize the multilevel-system approach. By utilizing this system as a framework for planning and evaluation, researchers, policymakers and project directors may be more able to (a) design and implement programs that address transition issues across levels; (b) design, implement, and evaluate strategies across and within levels, particularly where deficits exist; and (c) develop working partnerships across levels that facilitate cooperation in program implementation.

Our examination of category variables illustrated a major problem in finding conclusive evidence of program effectiveness. Confusion between activities and outcomes across projects is a primary example, leading to the conclusion that some framework for preparing final reports is needed. Such a framework should set forth clear definitions and examples of activities and measurable outcomes. In addition, employment should be defined so that integrated, competitive employment is seen as distinctly different from segregated, sheltered employment. Only through uniform reporting categories and consistent usage of outcome measures will we be able to effectively evaluate project efficiency and effectiveness in terms of impact on the postsecondary status of youths with disabilities.

Findings from this investigation illustrate the application of the multilevel conceptual framework and indicate its relevance for future program development and service delivery. The analytic model highlighted the foci of recent model programs, by level, while implying potential future directions for both policy and program development. Identification of common variables by level revealed relationships between various process variables and outcome variables, while emphasizing the need for uniform reporting of these variables.

Footnote

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Table 1

Conceptual Framework of Analysis: Multiple Systems of Influence Within a Community

Level	Description
Student and/or Family	The focus or targeted population of the proposed intervention.
Program	The service entity typically responsible for implementing the intervention.
Organization	The structure created by the agencies cooperating with the model program, through which all communication and services are coordinated.
Community	The myriad generic services that serve to define the context of the community.

Table 2

Summary of Competition Analyses: Selected OSERS Model Demonstration Project Competitions in Transition

Type of Project	Competition	Funded Grants (N)	% Final Reports Received	Expiration Dates	Intent of Project
Research in Education of the Handicapped: Handicapped Children's Model Demonstra-tion Projects/Postsecondary Projects	84.023G	15 Expired	87% (N=13)	1987	To support new model demonstration projects that link transitioning individuals to community-based training programs and services.
Postsecondary Education Programs for Handicapped Persons: Demonstration Projects for Mildly Mentally Retarded and Learning Disabled	84.078B	15 Expired	(N=15)	1985	To stimulate higher education (postsecondary, vocational, technical, continuing, or adult education) opportunities for persons with mild disabilities.
Postsecondary Demonstration Projects	84.078C	47 Expired	(N=14)	1988 1989	To focus on special adaptations of postsecondary services.
Special Projects and Demonstrations for Providing Vocational Rehabilitation Services to Severely Disabled Individuals	84.128A	5 Expired	(N=4)	1987	To establish demonstration projects for providing comprehensive programs in vocational rehabilitation services for persons with severe disabilities.
Secondary Education and Transitional Services for Handicapped Youth: Models for Planning and Implementation of Transitional Services	84.158C	39 Expired	(N=16)	1987 1989 1990	To support projects designed to plan and develop cooperative models for activities among SEAs or LEAs and adult service agencies.

Table 3

Meta-Evaluation Process for Analyzing Five OSERS Competitions

Procedure	Conducted By	Reliability Process
Competition analyses conducted. Project reports analyzed within competition. Project variables organized by category: demographics, purposes, activities, outcomes, barriers.	Institute researchers: staff and doctoral students	Accuracy of each analysis was computed by utilizing standard category-by-category agreement procedures.
Data from competition analyses entered into dBase file, organized by category. Printed output produced for each competition, by category.	Institute staff: Graduate research assistants (GRAs) experienced in data-based management, data manager	Accuracy of data input was assessed as follows: (a) each GRA checked his or her own work, (b) GRAs checked each other's work, and (c) the data manager checked the work of each GRA for congruence between data submitted and data entered. When output was produced for a competition analysis, the analysis researcher verified the accuracy of the data. Any discrepancies were addressed, with reference to original document if necessary, to reach 100% agreement.
Data from 5 competition analyses aggregated and variables assigned to conceptual levels (student and/or family, program, organization, community) by category (purposes, activities, outcomes, barriers). Aggregated demographic data produced; printed output generated for all categories.	Institute researchers and staff: Doctoral student conducting meta-evaluation (author), data manager	Inclusion of all variables from competition analyses to aggregated data was cross-referenced by the meta-evaluation researcher and a doctoral student. Variables were assigned to levels independently by two additional institute researchers. Any discrepancy between these researchers and the meta-evaluation researcher was addressed to reach 100% agreement.
Project outcomes identified as having employment or education focus. Employment projects/competitions grouped together; education projects/competitions grouped together.	Institute researchers: Meta-evaluation researcher, doctoral student	Assignment of projects to the employment or education group was checked for 100% agreement.
Most frequent variables cited by projects identified within competitions, by level, by category. Data aggregated for all competitions.	Meta-evaluation researcher	Identification of variables was checked by Institute Director for 100% agreement
Most frequent variables cited by projects identified across all competitions by level, by category. Summary tables produced.	Meta-evaluation researcher	Identification of summary variables was checked by Institute director for 100% agreement.

Table 4

Demographic Characteristics of Secondary and Transitional Services Competitions

	EMPLOYMENT					EDUCATION				
	84.158C n = 13	84.128A n = 4	84.023G n = 15	84.078C n= 10	Employment Subtotal n= 42	84.158C n= 3	84.078B n= 15	84.078C n= 4	Education Subtotal n= 22	TOTAL N= 64
Region										
Northeast	0	1	8	4	13	1	6	1	8	21
Southeast	4	1	0	1	6	2	2	0	4	10
Midwest	3	0	3	4	10	0	3	2	5	15
Northwest	1	0	2	0	3	0	3	0	3	6
Southwest	2	1	1	0	4	0	0	0	0	4
West	1	1	0	1	3	0	1	1	2	5
South	2	0	1	0	3	0	0	0	0	3
Primary Grantee										
Local Education Agency	4	0	1	0	5	0	1	0	1	6
University	2	1	9	6	18	0	10	4	14	32
State Education Agency	1	0	1	0	2	1	1	0	2	4
Private Not-for-Profit	5	1	2	3	11	1	3	0	4	15
Vocational Rehabilitation	0	2	2	0	4	1	0	0	1	5
Other	2	0	0	1	3	0	0	0	0	3
Annual Funding Level										
0-50,000	0	0	0	2	2	0	0	0	0	2
50,000-100,000	13	4	9	7	33	3	9	2	14	47
100,000-150,000	0	0	6	1	7	0	0	2	2	9
150,000-200,000	0	0	0	0	0	0	2	0	2	2
200,000+	0	0	0	0	0	0	4	0	4	4
Project Duration (in months)										
12	1	0	0	4	5	0	2	0	2	7
24	12	0	0	2	14	3	5	2	10	24
36	0	4	15	4	23	0	8	2	10	33
Cooperating Agencies										
Local Education Agency	9	4	10	5	28	3	-	3	6	34
State Education Agency	4	-	3	1	8	1	-	-	1	9
Vocational Rehabilitation	9	4	11	4	28	3	-	2	5	33
Mental Health	4	-	4	-	8	-	-	-	-	8
Business	2	4	6	6	18	-	-	1	1	19
Community College	5	1	3	5	14	1	-	-	1	15
Other	10	2	9	7	28	-	-	3	3	31
Population Served										
Mental Retardation	9	4	10	5	28	-	6	-	6	34
Learning Disabilities	4	3	11	8	26	1	12	4	17	43
Mental Illness/Emotional Disorders	2	1	4	7	14	-	-	-	-	14
Physical Handicaps	2	1	2	6	11	1	-	1	2	13
Sensory Impairments	1	1	2	3	7	1	-	1	2	9
Traumatic Brain Injury	1	-	-	3	4	-	-	1	1	5
Behavior Disorders	1	-	2	3	6	-	-	-	-	6
Other	3	2	4	7	16	-	1	1	2	18
Not Applicable	1	-	-	-	1	-	-	-	-	1
Age Range Served (in years)										
13 or less	-	1	-	-	1	-	-	-	-	1
14-16	1	2	3	-	6	2	2	-	4	10
16-18	7	3	11	-	21	3	5	1	9	30
18-21	12	3	15	8	38	2	12	3	17	55
21-25	3	1	8	8	20	1	13	3	17	37
25+	1	1	2	9	13	-	13	3	16	29

Table 5

Project Purposes of Secondary and Transitional Services Competitions

	EMPLOYMENT					EDUCATION				
	84.158C n = 13	84.128A n = 4	84.023G n = 15	84.078C n = 10	Employment Subtotal n= 42	84.158C n = 3	84.078B n = 15	84.078C n = 4	Education Subtotal n = 2	TOTAL N = 64
PURPOSES STATED IN OSERS RFP AND CITED BY PROJECTS										
Student and/or Family Level										
Educational Needs Assessment	-	-	-	-	-	1	-	-	1	1
Occupational Needs Assessment	3	-	-	-	3	-	-	-	-	3
Community-Based Employment Training and Services	-	-	7	-	7	-	-	-	-	7
Target Population-Includes Severe Disabilities	-	4	-	-	4	-	-	-	-	4
Target Population Priority-Severe Disabilities	-	2	-	-	2	-	-	-	-	2
Vocational Adjustment - Severe Disabilities	-	4	-	-	4	-	-	-	-	4
Education with Nonhandicapped Peers	-	-	-	5	5	-	-	-	-	8
Improved Work Opportunity	-	-	-	10	10	-	-	-	-	14
Program Level										
Techniques/Methods	2	-	-	-	2	1	-	-	1	3
Postsecondary Model Development	-	-	-	-	-	-	15·	-	15	15
Evaluation of Program Effectiveness	-	-	-	-	-	-	12	-	12	12
Demonstration of Effectiveness of Community-Based Model	-	-	5	-	5	-	-	-	-	5
Establishment of Demonstration Projects	-	4	-	-	4	-	-	2	2	14
Proposed Continuation of Project	-	-	-	10	10	-	-	4	4	14
Organizational Level										
Cooperative Model Development and Implementation	9	-	-	-	9	3	-	-	3	12
Developing Interagency Agreement	1	-	-	-	1	-	-	-	-	1
Coordination of Resource Sharing	2	-	-	-	2	-	-	-	-	2
Interagency Needs Assessment	1	-	-	-	1	-	-	-	-	1
Complementing Secondary Programming	-	-	1	-	1	-	-	-	-	1
Expanding/Improving Rehabilitation Services	-	4	-	-	4	-	-	-	-	4
Disseminating Model Project-Information	- -	-	-	10	10	-	-	4	4	14
Community Level										
Conduct Outreach Activities	-	-	-	-	-	-	1	-	1	1
ADDITIONAL PURPOSES CITED BY PROJECTS										
Student and/or Family Level										
Educational Needs Assessment	-	1	-	-	1	-	-	-	-	1
Occupational Needs Assessment	-	1	-	1	2	-	-	-	-	2
Provision of Work Experience	7	-	-	-	7	1	-	-	1	2
Vocational Education/Training	4	-	2	-	6	1	-	-	1	7
Transition to Postsecondary	-	-	-	-	-	-	5	-	5	5
Transition to Community	-	-	-	-	-	-	4	-	4	4
Transition within Community College	-	-	-	-	-	-	3	-	3	3

Table 5 (continued)

	EMPLOYMENT					EDUCATION				
	84.158C n = 13	84.128A n = 4	84.023G n = 15	84.078C n = 10	Employment Subtotal n = 42	84.158C n = 3	84.078B n = 15	84.078C n = 4	Education Subtotal n = 22	TOTAL N = 64
Student and/or Family Level (continued)										
Transition within University	-	-	-	-	-	-	2	-	2	2
Basic Skills Training	-	-	-	1	1	-	-	-	-	1
Outreach Activities	-	-	-	1	1	-	-	-	-	1
Employment Upgrading	-	-	-	1	1	-	-	-	-	1
Affective Skills Training	-	-	-	1	1	-	-	-	-	1
Program Level										
Techniques/Methods/ Instructional Strategies	-	-	1	-	1	-	-	4	4	5
Adaptive Equipment	-	-	-	-	9	1	-	-	1	1
Transition Planning/Services	-	4	-	3	7	1	-	1	2	11
Community-Based Employment Training and Services	-	-	2	4	6	-	-	-	-	7
Job Placement/Follow-Up	-	3	-	1	4	-	-	-	-	6
Job Development/Analysis	-	3	-	1	4	-	-	-	-	4
Development/Implementation of ITPs	-	2	-	-	2	-	-	-	-	2
Assessment of Project Effect on Dropout Rate	-	1	-	-	1	-	-	-	-	1
Preservice Training	-	2	-	-	2	-	-	-	-	2
Support Services to Assist Students in Completing Postsecondary Formal Qualification	-	-	-	-	-	-	-	2	2	2
Program Evaluation	-	-	-	1	1	-	-	2	2	3
Career Planning	-	-	-	3	3	-	-	-	-	3
Assessment of Effectiveness of Community-Based Design	-	-	-	1	1	-	-	-	-	1
Organizational Level										
Cooperative Model Development and Implementation	-	-	4	-	4	-	-	-	-	4
Developing Interagency Agreement	-	3	-	-	3	-	-	-	-	3
Interagency Needs Assessment	-	1	-	-	1	-	-	-	-	1
Collaborative Arrangements/ Service Delivery	-	4	-	1	5	-	4	-	4	9
Job Clearinghouse	-	-	1	-	1	-	-	-	-	1
Inservice Training	-	4	-	2	6	-	-	1	1	7
Establishing Advisory Board/ Task Force	-	4	-	-	4	-	-	-	-	4
Establishing Information Network	-	1	-	2	3	-	-	1	1	4
Dissemination	-	4	3	-	7	-	-	-	-	7
Developing a Consortium	-	-	-	1	1	-	-	-	-	1
Establishing Model Job Clubs	-	-	-	1	1	-	-	-	-	1
Establishing Interagency Center	-	-	-	1	1	-		1	1	2
Community Level										
Enhancing Public Awareness/ Policy	-	-	2	-	2	-	-	-	-	2
Expanding Employment Opportunities	-	-	1	-	1	-	-	-	-	1
Parent Advocacy Training	-	-	-	1	1	-	-	-	-	1
Enhancing Employer Awareness	-	-	-	1	1	-	-	-	-	1
Increasing Number of Postsecondary LD Students	-	-	-	-	-	-	-	1	1	1
Reducing Dropout Rate	-	-	-	-	-	-	-	1	1	1

Table 6

Summary Table of Most Frequently Cited Purposes, Activities, Outcomes, Barriers--Employment-Focused Competitions: 84.158C, 84.128A, 84.023C, 84.078C (N=42 Projects)

Conceptual Level	Purposes	Activities	Outcomes	Barriers
Student and/or Family	Improve Vocational Training (30)	Provide Work Skills Training (24)	Employ Individuals (24)	Parent and/or Family Resistance (8)
Program	Establish Community-Based Model Programs (9)	Implement Programs or Materials and Evaluate Effectiveness (42)	Establish Employment Training Programs or Services (17)	Personnel Issues (10)
Organization	Develop Cooperative Delivery Systems (19) Disseminate Information (14)	Enhance Interagency Collaboration or Cooperation (21) Disseminate Information (29)	Establish Cooperative Delivery Systems (18) Disseminate Information (31)	Lack of Collaboration or Cooperation (10)
Community	None Cited (40) Enhance Public Awareness or Policy (2)	None Cited (28) Conduct Public Relations Activities or Training (10)	None Cited (42)	Transportation (12)

Table 7

Breakdown of Summary Variables for Employment Projects (N=42)

	Purposes		Activities		Outcomes	
Conceptual Level	Summary variable (frequency)	Variables as cited by model projects included in summary variable	Summary variable (frequency)	Variables as cited by model projects included in summary variable	Summary variable (frequency)	Variables as cited by model projects included in summary variable
Student and/or Family	Improve vocational training (30)	-Enhance vocational adjustment of persons with severe disabilities -Establish community-based employment training services -Improve work opportunity -Provide work experience -Provide vocational education or training	Provide work skills training (24)	-Vocational and/or employability skills training -Work experience and/or job site training	Employ individuals (24)	-Transition of individuals to work -Transition from LEA to occupation
Program	Establish community-based model programs (9)	-Establish community-based employment training and services -Demonstrate effectiveness of community-based model	Implement programs or materials & evaluate effectiveness (42)	-Program evaluation and/or implementation -Development of materials or products -Utilization of effective strategies	Establish employment training programs or services (17)	-Job development and/or analysis -Established employment training
Organization	Develop cooperative delivery systems (19)	-Develop and implement cooperative model -Establish collaborative arrangements and/or service delivery -Establish information network -Disseminate model project information	Establish interagency collaboration or cooperation (21)	-Interagency collaboration -Coordination of activities with other community agencies	Establish cooperative delivery systems (18)	-Formation of task force -Development of local interagency agreements -Interface between education and community services
	Disseminate information (14)		Disseminate information (29)	-Dissemination	Disseminate information (31)	-Dissemination -Dissemination presentations
Community	None cited (40)	-None cited	None cited (28)	-None cited	None cited (42)	-None cited
	Enhance public awareness or policy (2)	-Enhance public awareness or policy	Conduct public relations activities or training (10)	-Public relations or employee outreach -General public training		

Note. Barriers are not included since variables listed as the summary variables appear as cited by projects (no variables were grouped).

Table 8

Summary Table of Most Frequently Cited Purposes, Activities, Outcomes, Barriers--Education-Focused Competitions: 84.158C, 84.078B, 84.078C (N=22 Projects)

Conceptual Level	Purposes	Activities	Outcomes	Barriers
Student and/or Family	Improve Work Opportunities (9)	Establish Postsecondary Support Services and/or Orientation (17)	Summative Evaluation and/or Assessment (7)	None Cited (22)
Program	Develop Postsecondary Model (15)	Implement Programs or Materials and Evaluate Effectiveness (20)	Development of Materials and/or Research (7)	Personnel Issues (9)
Organization	Develop and Implement Cooperative Models (7)	Establish Interagency Collaboration or Referral (13)	Dissemination of Information (13)	Lack of Collaboration (2)
Community	None Cited (19)	None Cited (9) Enhance Public Relations and/or Employee Outreach (13)	None Cited (22)	None Cited (20)

Table 9

Breakdown of Summary Variables for Education Projects (N=22)

	Purposes		Activities	
Conceptual level	Summary variable (frequency)	Variables as cited by model projects included in summary variable	Summary variable (frequency)	Variables as cited by model projects included in summary variable
Student and/or family	Improve work opportunities (9)	-Improve work opportunity -Enhance transition to employment	Postsecondary support services and/or orientation (17)	-Postsecondary support services and/or orientation -Academic training -Employability skills training -Assessment -Career exploration
Program	Develop postsecondary model 15)	-Develop postsecondary model	Implement programs or materials & evaluate effectiveness (20) Identify target population (15)	-Program evaluation and/or implementation -Functional curriculum development -Materials and/or products -Identification of target population
Organization	Develop & implement cooperative models (7)	-Develop and implement cooperative model -Establish collaborative arrangements and/or service delivery	Interagency collaboration or referral (13)	-Interagency collaboration -Referral among agencies -Identification and/or expansion of services
Community	None cited (19)	-None cited	Public relations and/or employee outreach (13)	-Public relations and/or employee outreach

Note. Outcomes and barriers are not included since variables listed as summary variables appear as cited by projects ([illegible]ariables were grouped).

Chapter Three

Employment Outcomes and Activities for Youths in Transition[1]

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Running Head: EMPLOYMENT OUTCOMES

Career Development for Exceptional Individuals, in press.

Abstract

This study identified 22 outcomes and 65 related activities associated with employment. The outcomes and activities were clustered according to intended impact as follows: individual and family level, program level, organizational level, and community level. Through a 2-phase Delphi technique, 168 federally-funded, model transition program directors, located in 42 states, rated the outcomes for importance. These project directors ranked three program-level outcomes as most important: utilizing individualized education plans, educating students alongside their nondisabled peers, and documenting progress in employment-related skill areas. Placing students into competitive, integrated employment (including supported employment) and demonstrating improved work opportunities also were ranked highly by project directors. Implications for future research and educational restructuring are discussed.

Employment Outcomes and Activities for Youths in Transition

Concern over the health of our schools has gained increasing attention in the past 20 years. This concern has resulted in a number of reports providing substantive evidence that our schools are failing to attain the outcomes valued by our society (cf. Boyer, 1983; Goodlad, 1984; Sizer, 1992; Toch, 1991). New educational goals and solutions to attain these goals, including school restructuring, also have emerged (Education Commission of the States, 1983; National Assessment of Educational Progress, 1990). Special education has contributed to the education reform movement by considering outcomes associated with the education of youths with diverse abilities (Rusch, DeStefano, Chadsey-Rusch, Phelps, & Szymanski, 1992; Ysseldyke, Bruininks, & Thurman, 1992). As a result, similar to the emerging school restructuring literature, special education reformists have made numerous recommendations, including: addressing teacher shortages; extending the school year; developing linkages among high schools, colleges, and businesses; and articulating desirable post-education outcomes (cf. Johnson & Rusch, 1992).

Indisputably, the majority of students exiting special education find their post-school aspirations compromised, particularly the aspiration of full-time competitive employment (Mithaug, Martin, Agran, & Rusch, 1988). Fewer students leaving secondary special education find employment than students leaving regular attendance programs (D'Amico, 1992). Data are beginning to emerge, however, suggesting that certain high school experiences may contribute significantly to obtaining and maintaining employment. For example, D'Amico (1992) recently reported that high school vocational education experiences, work-study jobs, and paid work experiences were early predictors of employment. Heal and Rusch (in press) found that student competence and a community-focused curriculum contributed significantly to post-school employment.

The federal government has shown an increased interest in the education and employment of youths with disabilities. Clearly, the federal government played a key role in promoting employment outcomes when Will (1984) introduced the Office of Special Education and Rehabilitative Services (OSERS) transition model, which established a national priority on transition from school to work. Further, since the passage of P.L. 98-199 (known as the Individuals with Disabilities Education Act Amendments of 1983), over 200 model programs have been funded by the Office of Special Education Programs (OSEP) to establish employment services for youths with disabilities.

The purpose of this investigation was to identify outcomes and related activities associated with model programs focusing upon employment of youths during the transition period, generally considered to be the period immediately prior to and after exiting school (i.e., 16-25 years of age).

This investigation sought to extend research reported by Rusch, Kohler, and Hughes (1992) that examined the findings related to 42 model programs funded by OSERS. An important contribution made by Rusch et al. (1992) was their identification of outcomes and activities that impacted upon students and families, the model programs, collaborating agencies, and/or the communities in which the model programs emerged. However, Rusch and his colleagues (1992) suggested that research is needed whereby concensus is reached pertaining to employment outcomes and associated activities that support and promote these outcomes.

This investigation is significant because it is based on the input of model transition program directors across the United States who were asked to identify outcomes they believed were important for student employment after graduation. Program directors also were asked to list activities they utilized to attain these outcomes. Finally, this investigation extended application of the conceptual framework introduced by Rusch and Mithaug (1985), Rusch and Phelps (1987), and Hanley-Maxwell, Rusch, and Rappaport (1989), which is based upon work originally reported by Bronfenbrenner (1977).

Methods

Three phases of data collection and analysis were utilized in this investigation. In the first phase, data were obtained from final reports submitted by federally-funded model demonstration, transition-to-employment project directors. An analysis of these final reports yielded an aggregate list of program outcomes and activities. The second phase involved the construction of a questionnaire that listed outcomes and related activities, with corresponding spaces for adding to the list and/or commenting on the existing list. The questionnaire was finalized following consultation with an expert panel of 12 model demonstration transition-to-employment project directors. Finally, Phase 3 sought to validate the outcomes and activities through a two-round Delphi technique.

Identification of Model-Program Outcomes and Activities (Phase 1)

The initial list of outcomes and activities were obtained from four model demonstration project competitions funded by the Office of Special Education Programs. These four competitions focused upon (a) identifying effective techniques and methods for helping youths make the transition from public schools to employment (N = 13, CFDA #84.158C); (b) promoting transition from school or institution to work (N = 4, CFDA #84.128A); (c) providing individuals the skills they need for productive work (N = 15, CFDA #84.023G); and focusing upon special adaptations in postsecondary work settings (N = 10, CFDA #84.078C).

The current investigation applied the systems-level conceptual framework introduced by Rappaport (1977) and Hanley-Maxwell, Rusch, and Rappaport (1989) and utilized by Rusch et al. (1992) to examine outcomes and activities across the 42 projects. The conceptual framework includes four levels of possible influence operating within the context of a "community." These levels are important because they suggest that multiple strategies (activities) may be required to make the "educational community" more effective at providing meaningful educational experiences to youths. As originally conceived (cf. Rusch & Phelps, 1987), this systems-level conceptual framework consists of (a) the student and family, who are often the focus of proposed interventions; (b) the program, which is most often established as a service entity and typically is responsible for implementing educational interventions; (c) the agencies that collaborate with the school to form an organizational structure in which all communication and services are coordinated; and (d) the community, which includes the myriad generic services we often take for granted as defining our communities (e.g., transportation, medical services, recreational programs, employment opportunities). Equally important, by utilizing a systems-level framework for planning and evaluation, "researchers, policymakers and project directors may be more able to (a) design and implement programs that address transition issues across levels; (b) design, implement, and evaluate strategies across and within levels, particularly where deficits exist; and (c) develop working partnerships across levels that facilitate cooperation in program implementation" (Rusch et al. 1992, pp. 142-143).

Examination of grant applications and final reports indicated that 24 model demonstration programs sought to employ students (Student and Family Level) and 17 sought to establish employment training programs (Program Level), while 18 sought to establish cooperative delivery systems (Organizational Level). These programs were funded with the expectation that their focus would be employment (see Table 1). In the original analysis, Rusch et al. (1992) found that model program directors did not report any outcomes at the Community Level. This finding led Rusch and his colleagues to conclude that model programs first funded in 1984 may have been more focused upon program-related start-up issues and service delivery than upon the types of problems that arise later for model programs that are addressing the availability of community services to individuals with disabilities.

Activities reported by the model program directors appeared to parallel the outcomes they reported. Specifically, projects provided work-skills training to promote employment (Individual Level), implemented programs and materials and evaluated their effectiveness when establishing training programs and services (Program Level), and introduced activities focused upon enhancing interagency collaboration to establish cooperative delivery systems (Organizational Level).

Development of Questionnaire by Expert Panel (Phase 2)

Twelve model demonstration project directors served on an expert panel that helped develop the questionnaire. The criteria for selection of the panelists included (a) willingness to be involved in the production of the questionnaire and (b) prior responsibility for programs focusing upon transition from school to employment. In terms of geographical distribution, panelists were from the states of Washington (N=3), California (N=3), Arizona (N=3), Colorado (N=1), New Mexico (N=1), and Nebraska (N=1).

Panelists received a letter inviting them to participate in the development of the questionnaire. Included were instructions for completing the proposed questionnaire and a list of the most frequently cited outcomes and activities identified from earlier research reported by Rusch et al. (1992).

Panelists were asked to rate each of the outcomes on a 9-point scale (Not Important = 1 to Very Important = 9). They also were to examine the activities listed as contributing to the outcomes and indicate whether the outcomes and activities should be "kept," "modified," or "omitted." Additional outcomes or activities also were solicited.

Based on feedback from the panel, a final list of 22 employment-related outcomes and 65 associated activities, organized by level of potential impact (i.e., student and family, program, organization, and community) was included in the questionnaire. The final questionnaire included the same rating scale used with the expert panel for determining the perceived importance of outcomes and activities.

Two-Round Delphi Procedure (Phase 3)

The questionnaire was sent to 168 project directors who represented all but eight states, Washington D.C., and the Northern Mariana Islands. One hundred and six (63%) responses were returned in Round 1. Two months following the first mailing, a second Delphi instrument was sent to the original list of 168 project directors; resulting in 75 responses (45%). The mean ratings for outcomes and activities obtained during Round 1 were included in the revised questionnaire sent to the 168 project directors for Round 2.

Results

Table 1 lists the mean ratings for Round 1 and Round 2 for all 22 outcomes and their associated activities. Table 2 provides a rank ordering of the 22 outcomes separately for Round 1 and Round 2, the mean ratings for both rounds, and the mean shifts from Round 1 to Round 2.

Insert Tables 1 and 2 about here

As shown in Table 2, the rankings for the first 10 outcomes did not change significantly across rounds. While 15 of the outcome statements (68%) increased in mean value, 7 (32%) outcome statements decreased in mean value from Round 1 to Round 2. The outcome for which the rating increased the most was Outcome 7, the statement that model transition programs should "individualize transition planning for students." This outcome statement also was the highest ranked statement in both rounds. Outcomes 14 and 5 achieved the next highest positive mean value shift. These outcomes reflected a focus upon cost-effectiveness (14) and disseminating reports of student's progress (5).

The five highest rated outcome statements from Round 2, were outcomes focused upon individualized transition plans (7, Program Level), demonstrating improved work opportunities for youths (22, Community Level), placing students into competitive, integrated employment (including supported employment) (1, Individual and Family Level), demonstrating functional skill development of students (2, Individual and Family Level), and documenting progress in employment-related skills (9, Program Level). Not surprisingly, model demonstration project directors rated continuing their projects beyond the federally-sponsored period (Outcome 6, a being very important). Because this outcome was seen as unique to the model demonstrations, discussion of this outcome is not included herein; however, the outcome is retained in Tables 4 and 5.

The five outcomes rated the lowest in Round 1 included (a) accepting responsibility for forming a state, local, or regional taskforce to achieve coordinated leadership and direction (17, Community Level); (b) upgrading the skills of professionals and paraprofessionals (4, Program Level); (c) establishing employment referral services (19, Community Level); (d) developing curricula (12, Program Level); and (e) expanding rehabilitation services (20, Community Level). It is notable that all five of these outcomes were rated lowest during the second round as well. More importantly, they represent outcomes that are fairly removed from direct services provided to youths, and therefore, may be perceived as the responsibilities of agencies other than the model programs themselves.

A complete listing of the corresponding activities for each of the 22 outcomes may be found in Table 4. The highest ranked outcome, which focused upon individualized planning (Outcome 7), included two activities that recommended developing "strong cooperative linkages" with vocational rehabilitation and vocational education. In Round 2, these activities received mean ratings of 7.98 and 7.74, respectively.

Three activities, each associated with outcomes related to integrated competitive employment placements, were rated highest during both rounds: (a) Activity 1.3 pertaining to job exploration and training (8.25, 8.50); (b) Activity 3.2 recommending integrated competitive employment placements (8.59, 8.68); and (c) Activity 22.1, evaluating effectiveness of placement and maintenance activities (8.17, 8.56) (refer to Table 4) .

Not surprisingly, the activities associated with the lowest rated outcomes also received low ratings from the project directors. In general, the mean values for these activities ranged from 4.91 to 6.97, although several activities related to training teachers and staff were rated somewhat higher.

Discussion

This investigation identified outcomes and related activities believed to be important when focusing upon transition from school to employment. Findings extend available research by identifying 22 employment outcomes and 65 related activites thought to enhance achieving these outcomes. Prior research conducted by Rusch et al. (1992) reported frequently cited outcomes and activities. This investigation directly extends Rusch et al. (1992) by validating the relative importance of selected outcomes from the perspective of a select group of transition service providers. Most importantly, the present investigation provides a list of 65 activities that high school personnel may engage in to attain 22 employment outcomes.

Passage of the Individuals with Disabilities Education Act in 1990 (P.L. 101-476) marked a new era of accountability in secondary special education and transition-related services. The promise for the future is the emergence of an educational system that insures that students with disabilities receive a coordinated education resulting in planned post-school outcomes, including independent, competitive employment. The responsibility for fulfilling these expectations will fall upon local education agencies and those who provide services directly to students. The present investigation is important because it suggests a short list of agreed-upon, employment outcomes that educational agencies and service providers can target to increase their potential effectiveness.

Further, these outcomes suggest that teachers who work with students in secondary-level education programs will require additional and quite different competencies to meet the mandates of IDEA (e.g., placing students into competitive integrated employment). As a result, state departments of education and colleges of education preparing secondary educational personnel must recognize the existence of new, emerging outcomes that will begin to form the foundation for school restructuring (Stodden & Leake, in press).

Further, this investigation suggests that state teacher certification requirements and personnel preparation programs must focus upon competencies that promote identification of career-related goals, improve education-business linkages, focus upon integrated employment, and provide training in integrated settings. In addition, future educators must become aware of and accept their responsibilities related to being held accountable for their efforts.

When considering the level of impact of the outcomes identified in this investigation, it is apparent that the ratings of outcomes at the Organizational level are not as high as those at the other Individual and Family, Program, and Community levels. Three outcomes were identified to impact upon Student and Family level. Among these, placing students into competitive, integrated employment, ranked third overall. The other two outcomes identified at the Individual and Family level ranked first (Utilizing Individualized Education Plans) and fourth (Training in Integrated Settings), respectively. These outcomes reflect fundamental principles behind the guidelines stated by OSEP and specified in the legislation. In particular, emphasis was given to training students with their nondisabled peers to achieve specific post-school outcomes (Davila, 1992).

Important linkages between particular outcomes across the various system levels also emerged which are relevant to current school restructuring discussion. For instance, not only do secondary-level teachers and service providers need to be trained in how to produce the outcomes identified herein, but those responsible for program development must address multiple levels of outcomes in order to design more effective programs. To achieve student employment (Outcome 1 at the Student and Family Level), schools presumably need to provide individualized planning and job-skill training, assess student progress, and ensure that needed services continue from year to year (Outcomes 7, 8, 5, and 6, respectively, at the Program Level). Further, programs must be cost-effective (Outcome 14 at the Organizational Level) and impact services and opportunities within their communities (Outcomes 21 and 22 at the Community Level).

The outcomes identified and rated in this investigation offer a starting point for examining relationships between outcomes at the various levels of intended impact and direct relationships between outcomes and activities. Future research must begin to identify effective practices associated with producing these specific outcomes. In addition, techniques for measuring both outcomes and activities are needed.

By viewing outcomes across multiple levels of influence, it becomes apparent that numerous forces or factors relate to specific student outcomes. Thus, efforts to restructure the methods and substance of secondary special education services must focus on more than what occurs in an individual classroom. The present analysis suggests that multiple perspectives and strategies are necessary to bring about significant improvement in the post-school outcomes of youths with disabilities.

Footnote

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2. A complete list of outcomes and activities is available upon request.

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Table 1

Comparison of Mean Rating Values for All Outcomes and Activities from Delphi Rounds 1 and 2

Outcome Number	Activity Number	Description	Mean Round 1	Mean Round 2
Student and Family Level				
1		Model transition-to-employment projects must place students into competitive, integrated employment (including supported employment).	8.28	8.40
	1.1	Provide job placement services.	7.91	7.85
	1.2	Work with adult service agencies to ensure job placement.	7.66	7.72
	1.3	Provide job exploration and job-training opportunities as part of the school curriculum to prepare students for competitive employment.	8.25	8.50
	1.4	Provide job support services.	8.09	8.27
	1.5	Provide the technical assistance to adult service agencies to provide job placement and job support services.	6.88	6.55
2		Model transition-to-employment projects should demonstrate functional skill development of students.	8.04	8.09
	2.1	Use instruments and procedures that identify individual functional skills and consumer preferences and life goals.	7.51	7.66
	2.2	Develop individualized objectives for students that reflect functional skill development in the domains of vocational skills, independent living, and community integration.	8.09	8.32
3		Model transition-to-employment projects should ensure that students experience education or training with nondisabled peers.	8.29	8.39
	3.1	Conduct training activities for youths without disabilities as well as for those with disabilities.	6.47	6.28
	3.2	Utilize integrated competitive and supported employment placements.	8.59	8.68
	3.3	Utilize nonpaid volunteer placements in compliance with Department of Labor (DOL) standards.	6.51	6.31
	3.4	Utilize community-based education and training sites.	8.26	8.47

Table 1 (continued)

Outcome Number	Activity Number	Description	Mean Round 1	Mean Round 2
Program Level				
4		Model transition-to-employment projects should upgrade the skills of professionals and paraprofessionals to licensing standards at their local equivalent.	6.65	6.08
	4.1	Train vocational counselors.	6.76	6.41
	4.2	Train job coaches.	7.64	7.48
	4.3	Provide inservice training for secondary and postsecondary teachers including job developers, resource teachers, and vocational educators.	8.04	8.08
	4.4	Train instructors on community, functional skill-based curriculum and instructional methods.	7.74	7.84
5		Model transition-to-employment projects should publish reports of their students' documented progress.	7.12	7.39
	5.1	Develop a final report for students and their families.	6.87	6.83
	5.2	Utilize Individualized Education Plans (IEPs) as the basis for publishing reports.	5.71	5.52
	5.3	Conduct a longitudinal study of graduates and report these data.	7.50	7.61
6		Model transition-to-employment projects should be continued beyond the federal funding period.	8.25	8.41
	6.1	Identify alternative funding from other agencies to continue the project.	7.92	8.08
	6.2	Develop funding from within local special education program budget for transition-to-employment projects.	7.99	7.93
7		Model transition projects should utilize individualized transition planning for students with disabilities.	8.45	8.77
	7.1	Develop strong cooperative linkages with vocational rehabilitation services to develop IEPs.	7.85	7.98
	7.2	Develop strong cooperative linkages with vocational education services to develop IEPs.	7.55	7.74

Table 1 (continued)

Outcome Number	Activity Number	Description	Mean Round 1	Mean Round 2
8		Model transition-to-employment projects should provide job-skill training.	7.76	8.01
	8.1	Conduct job-skill analysis.	7.53	7.90
	8.2	Develop a curriculum to facilitate training.	7.12	7.36
	8.3	Determine labor-market needs.	7.45	7.41
	8.4	Identify job skills that employers require of their employees.	8.03	8.32
9		Model transition-to-employment projects should document student progress in employment-related skills (e.g., social skills).	8.10	8.34
	9.1	Undertake social skills assessment of students.	7.32	7.54
	9.2	Provide on-site community-based training in employment-related social skills.	7.85	8.02
	9.3	Assess student progress in job-related skills.	8.06	8.24
10		Model transition-to-employment projects should achieve replication at least at the level of full utilization of a project feature, component, or product (such as a training manual).	7.33	7.40
	10.1	Negotiate directly with an organization or agency to replicate the model project.	6.54	6.42
	10.2	Develop and disseminate replication manual(s).	7.05	7.01
	10.3	Disseminate information and products to other agencies.	7.61	7.73
11		Model transition-to-employment projects should establish employment support services.	7.77	7.65
	11.1	Train job coaches.	7.39	7.56
	11.2	Provide co-worker training.	7.09	7.41
	11.3	Utilize vocational rehabilitation counselors as appropriate.	7.29	7.75

Table 1 (continued)

Outcome Number	Activity Number	Description	Mean Round 1	Mean Round 2
	11.4	Educate employers about benefits of hiring people with disabilities.	7.75	8.08
	11.5	Train and utilize job developers	7.60	7.66
12		Model transition-to-employment projects should develop curricula.	6.43	6.38
	12.1	Conduct an analysis of job coach roles.	6.14	6.26
	12.2	Employ personnel with curricula-writing skills.	5.36	5.28
	12.3	Review existing curricula to determine if new curricula are needed.	6.76	6.76
	12.4	Conduct needs assessment to determine curricular needs.	6.60	6.51
Organization Level				
13		Model transition-to-employment projects should develop materials to facilitate replication (e.g., replication guides, training manuals, assessment instruments).	7.29	7.12
	13.1	Allocate a section of the project budget to publication and production costs.	7.26	7.20
	13.2	Identify production priorities initially and monitor throughout the life of the project.	6.90	6.76
14		Model transition-to-employment projects should demonstrate cost effectiveness.	7.45	7.72
	14.1	Record all real costs of project activities.	7.77	7.90
	14.2	Record effectiveness measures such as time allocated to training and quality-of-life measures.	7.57	7.80
15		Model transition projects should disseminate information about their projects by producing a product at least at the level of an article for the popular press.	7.13	7.29
	15.1	Employ a project director with a commitment to disseminate information at least at this level.	7.32	7.33

Table 1 (continued)

Outcome Number	Activity Number	Description	Mean Round 1	Mean Round 2
	15.2	Require all workers to keep accurate records of all service and other activities conducted by the project.	7.31	7.54
Community Level				
16		Transition-to-employment projects should develop and document a formal interface between education and community services (e.g., between schools and state vocational rehabilitation agencies).	7.72	7.95
	16.1	Conduct workshops to train personnel.	7.23	7.40
	16.2	Communicate needs of project consumers to community agency personnel.	7.90	8.06
	16.3	Document meetings between education professionals and professionals/paraprofessionals outside of education.	7.13	7.14
17		Model transition-to-employment projects should accept responsibility for forming a state, local, or regional taskforce to achieve coordinated leadership and direction of a model project.	6.41	5.95
	17.1	Negotiate directly with administrators from community agencies.	6.59	6.62
	17.2	Conduct public relations programs for targeted audiences, such as employers, careproviders, and agencies.	6.97	6.63
18		Model transition-to-employment projects should develop and document a cooperative service delivery model when more than one agency is providing consumer services.	7.30	7.54
	18.1	Articulate the roles of all associated agencies.	7.37	7.59
	18.2	Employ personnel whose role is to coordinate project activities.	7.00	7.13
	18.3	Document services provided by cooperating agencies.	7.01	7.05
19		Model transition-to-employment projects should establish and document employment referral services.	6.19	6.17
	19.1	Operate a database for employer and consumer matching.	5.81	5.49
	19.2	Conduct and publish regular analyses of job-market trends.	4.91	4.63

Table 1 (continued)

Outcome Number	Activity Number	Description	Mean Round 1	Mean Round 2
20		Model transition-to-employment projects should produce expanded rehabilitation services.	6.64	6.44
	20.1	Document student (client) experiences with rehabilitation (education) agencies.	6.65	6.62
	20.2	Develop cooperative activities with rehabilitation (education) agencies.	7.47	7.60
21		Model transition-to-employment projects should demonstrate improved access to community-based services for persons with disabilities.	7.90	8.13
	21.1	Document the number of students in the project served by community agencies.	7.72	7.82
	21.2	Conduct outreach activities such as seminars and workshops for community agency personnel.	7.52	7.56
	21.3	Conduct technical assistance services to center-based agency personnel to foster conversion to community-based services.	7.30	7.31
22		Model transition-to-employment proejcts should demonstrate improved work opportunities for youths with disabilities.	8.43	8.67
	22.1	Evaluate and document effectiveness of job placement and maintenance activities.	8.17	8.56
	22.2	Research job trends and business requirements.	6.67	6.45
	22.3	Work cooperatively with community agencies to conduct longitudinal studies.	7.39	7.41

Table 2

Outcome Rankings, Mean Ratings, and Mean Shifts for Delphi Round 1 and Round 2

Outcome Number	**Short Description of Outcome**	**Ranking Round 1**	**Ranking Round 2**	**Mean Round 1**	**Mean Round 2**	**Mean Shift**
	Student and Family Level					
1	Competitive integrated employment	4	4	8.28	8.40	0.12
2	Skills development	7	8	8.04	8.09	0.05
3	Training in integrated settings	3	5	8.29	8.39	0.10
	Program Level					
4	Personnel preparation	18	21	6.65	6.08	-0.57
5	Publish reports of student progress	17	15	7.12	7.39	0.27
6	Continue past funding period	5	3	8.25	8.41	0.16
7	Use individualized education plans	1	1	8.45	8.77	0.32
8	Job-skill training	10	9	7.76	8.01	0.25
9	Document progress in employment-related skills	6	6	8.10	8.34	0.24
10	Replication	13	14	7.33	7.40	0.07
11	Employment support services	9	12	7.77	7.65	-0.12
12	Develop curricula	20	19	6.43	6.38	-0.05
	Organizational Level					
13	Develop materials for replication	15	17	7.29	7.12	-0.17
14	Cost-effectiveness	12	11	7.45	7.72	0.27
15	Disseminate information	16	16	7.13	7.29	0.16
	Community Level					
16	Interface education and community services	11	10	7.72	7.95	0.23
17	Form taskforce	21	22	6.41	5.95	-0.46
18	Cooperative service-delivery model	14	13	7.30	7.54	0.24
19	Establish and document employment referral	22	20	6.19	6.17	-0.02
20	Expanded rehabilitation services	19	18	6.64	6.44	-0.20
21	Demonstrate improved access to community services	8	7	7.90	8.13	0.23
22	Demonstrate improved work opportunities	2	2	8.43	8.67	0.24

Chapter Four

School-to-Work Transition: Identification of Employment-Related Outcome and Activity Indicators[1]

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Running Head: SCHOOL TO WORK TRANSITION

School to Work Transition: Identification of Employment-Related Outcome and Activity Indicators[1]

For the past decade, employment of youths with disabilities has been a primary focus of policy makers, researchers, and service providers. Each conceptual model of transition that emerged featured employment as a desirable outcome (e.g., Halpern, 1985, 1992; Wehman, Kregel, & Barcus, 1985; Will, 1984). During this period, researchers have assessed continuously whether or not youths have achieved employment after leaving school (e.g., de Bettencourt, Zigmond, & Thornton, 1989: Fardig, Algozzine, Schwartz, Hensel, & Westling, 1985; Haring, Lovett, & Smith, 1990; Hasazi, Gordon, & Roe, 1985; Mithaug, Horiuchi, & Fanning, 1985; Roessler, Brolin, & Johnson, 1990; Wagner, 1989) and policy makers have funded programs as demonstrations in promoting employment (Individuals with Disabilities Education Act Amendments of 1983; 1986; 1990). It is recognized that secondary-level school programs, in conjunction with other community organizations, must establish interventions that will lead to and result in employment of youths with disabilities.

Recently, specific practices thought associated with positive employment outcomes have begun to emerge, although empirical support for such practices is not abundant (e.g., Kohler, in press; Rusch, DeStefano, Chadsey-Rusch, Phelps, & Szymanski, 1992). It has been much easier to evaluate the employment outcomes of students than it has been to identify programmatic outcomes associated with producing employment. Program evaluation has focused typically on outcomes achieved by program participants, but in many cases has overlooked specific documentation of the intervention, or levels of the intervention, that can be used to assess particular program elements in relation to participant outcomes. Thus, programs may be identified as effective or exemplary, yet the cause of effectiveness may be unclear (see Kohler, DeStefano, Wermuth, Grayson, & McGinty, in press).

One problem associated with determining program effectiveness is the lack of agreed upon outcomes and well-defined activities implemented in conjunction with the desired outcomes (Bruininks, Wolman, & Thurlow, 1990; DeStefano & Wagner, 1992; Halpern, 1990; Oakes, 1986; Rusch, Kohler, & Hughes, 1992). Further, there is a need for measures with which to assess the level and degree of intervention (activities) and achievement (outcomes). Another complicating factor involves the multiplicity of outcomes that might be achieved by programs focused on employment. Evaluation and social science literature suggest that programs operate in the context of multiple stakeholders and or systems that may complicate or make demands upon the program (Rappaport, 1977; Worthen & Sanders, 1987). Thus, outcomes related to the various stakeholders or systems should be considered when evaluating program effectiveness. Finally, these multiple outcomes would subsequently affect, or be related to, outcomes associated with students.

The primary purpose of this study was to identify potential measures for evaluating the multiple outcomes and activities associated with programs designed to promote employment of youths with disabilities. Specifically, this study sought to extend the work of Rusch, Enchelmaier, and Kohler (in press) by identifying measures for 17 program outcomes and 51 associated activities that had been identified previously by model demonstration transition project directors from across the United States.

Rusch et al. (in press) identified 22 employment-related outcomes and 65 associated activities believed to be important by model demonstration project directors across the United States. Through a two-round Delphi procedure, 106 and 75 project directors, respectively, rated the outcomes and activities for importance on a nine-point Likert-type scale. The outcomes and activities were organized according to the systems-level conceptual framework originally conceived by Rusch and Phelps (1987) and used in previous analyses of model demonstration final reports to identify project purposes, activities, outcomes, and barriers (e.g., Rusch, Kohler, & Hughes, 1992). This framework consists of four levels of possible influence, and thus suggests that programmatic outcomes occur and impact more than the individuals participating in a particular program. Rusch, Kohler, and Hughes (1992) also suggested that programs focused on employment outcomes may have to achieve outcomes across all levels to produce meaningful, systemic change. The four levels include (a) the student and family, typically the primary focus of the program or intervention; (b) the program responsible for administering the intervention; (c) the organizations that collaborate with the program to provide services; and (d) the community, which includes all the generic services, opportunities, and barriers typically taken for granted in defining the context of a program. The conceptual framework is graphically represented in Figure 1.

Within each conceptual level, a number of outcomes were identified; for each outcome, a number of activities thought associated with promoting the outcome were identified also. For example, at the Student/Family level, Outcome 1 stated "Model transition-to-employment projects must place students into competitive, integrated employment (including supported employment)." Activities associated with this outcome included: (a) Provide job placement services, (b) work with adult service agencies to ensure placement, (c) provide job exploration and job-training opportunities as part of the school curriculum to prepare students for competitive employment, (d) provide job support services, and (e) provide the technical assistance to adult service agencies to provide job placement and job support services (Rusch et al., in press). Across the four conceptual levels, Rusch et al. (in press) reported that the mean ratings of the 22 outcomes ranged from 5.95 to 8.77. The current study focused on the 17 outcomes that received a mean rating of 7.00 or higher (see Table 1). For those five outcomes rated less than 7.00, there was less agreement as to importance, as well as greater response variability.

Insert Table 1 and Figure 1 about here

This study sought to identify measures that would serve as indicators for each outcome and activity. Thus, the intent was to extend the analytic model that featured outcomes across multiple levels, identify measures that would indicate the outcome had been attained or achieved, identify activities associated with producing related outcomes, and identify measures that would indicate the activity had been implemented, and in some cases, the level of implementation. Figure 2 illustrates a model of the perceived organizational relationships between the outcomes, activities, and their measures.

Method

Participants

Directors of OSERS-funded model demonstration projects focused on employment served as the participant pool for this study. A letter was mailed to the 167 project directors identified to participate in the Delphi procedure referred to previously. The letter requested that they participate in a study to identify measures for reporting the outcomes and activities. Fifty-three project directors returned a postcard indicating their willingness to participate. Subsequently, an instrument that listed each of the 17 outcomes was mailed to the 53 responders. They were asked to identify the five outcomes for which they were most interested in identifying measures, and to rate these outcomes from 1 to 5, with 1 being their first priority. Forty-nine project directors responded to this request.

Data Collection

For each outcome, a list of participants wanting to focus upon the outcome was generated, by priority. Using these data, participants were assigned to work on specific outcomes and the associated activities. A minimum of three participants were assigned to each outcome; all participants were assigned to work on the outcome they selected as their first priority. In some cases, participants were assigned to focus on their subsequent priorities as well, since these outcomes were not selected as a first priority by three individuals. For example, 21 participants selected Outcome 1 as a first priority, 2 individuals identified Outcomes 3, 8, and 17 as a first priority, and no one selected Outcomes 4, 9, 11, or 12 as their first priority. Final assignment included the following distribution of participants to outcomes:

1 outcome with 21 participants, 4 outcomes with 4 participants each, and 12 outcomes with 3 participants each. Finally, individual participants were assigned to focus on a range of outcomes: 29 participants were assigned 1 outcome, 15 were assigned 2 outcomes, and 5 were assigned 3 outcomes.

The instrument utilized in the Rusch et al. (in press) Delphi procedure was modified for use in the present investigation. This instrument was divided into four sections, one for each conceptual level (e.g, Student/family, etc.). Within each section, the outcomes and their associated activities were listed. Space for writing in suggested measurements or indicators followed each outcome and activity. The authors generated initial suggestions for the first three outcomes to serve as examples to guide the participants. These examples were initially drawn from final reports and then were circulated to research faculty and staff of the Transition Research Institute at Illinois whose feedback was used to develop the final examples.

Subsequently, a letter, instructions, the instrument, and a return envelope were mailed to the 49 participants; each participant was instructed to work on specific outcomes, but was encouraged to suggest measures for any of the others as well. Approximately six weeks later, a reminder letter was mailed to all participants who had not responded. As responses were received, a running list of suggested measures was compiled for each outcome and activity. Content analysis was conducted on the data; redundant measures were deleted and the list was clarified. A draft list of suggested measures was produced and mailed for feedback to the 167 project directors identified initially as the participant pool.

Results and Discussion

Thirty participants (61.2%) returned suggested measures; suggestions were received for every outcome and every activity. Participants represented 11 OSERS' funding competitions, such as Handicapped Children's Model Programs: Youth Employment Projects (84.023D) and Secondary Education and Transitional Services: Training and Employment Models for Youth with Severe Handicaps (84.158N). Also, participants represented 24 states across all regions of the United States.

Both qualitative and quantitative indicators were submitted. For example, qualitative measures suggested to indicate that students had been trained with peers who do not have disabilities (Outcome 3) included the identification of roles played by peers and identification of the natural interactions and supports present at the setting. Quantitative measures for the same outcome included the hours and proportion of contact per day with nondisabled peers, and the number and proportion of such peers present in classroom settings. One outcome from each conceptual level, associated activities, and suggested measures are outlined in Table 2[2].

Insert Table 2 about here

Two responses were received after the draft document was circulated to the 167 project directors for review. Both of these responses were very positive and focused on the comprehensive nature of the outcomes, activities, and measures and their usefulness in planning, proposing, and evaluating projects and services.

This investigation identified measures for 17 outcomes and 51 related activities believed to be important in promoting employment of youths with disabilities. These findings extend previous research by identifying qualitative and quantitative indicators for use in identifying and reporting program outcomes and related activities. This investigation directly extends the Rusch et al. (in press) study, and the literature in general, by identifying hundreds of specific measures for the 17 outcomes and 51 activities that had been validated by model demonstration transition project directors as important factors of programs focused on employment.

Most importantly, this investigation created an in-depth task analysis of the 17 program outcomes and the 51 activities thought to enhance achievement of these outcomes. In essence, what initially began as a list of measures to be used as indicators that an outcome had been achieved or an activity had been implemented emerged as a comprehensive representation of strategies associated with each outcome and each activity. In other words, in looking for ways to measure that an activity had occurred, what emerged was a list of strategies associated with that activity. For example, Outcome 6 states that "Model transition projects should utilize individualized transition planning for students with disabilities." Activity A for this outcome states: "Develop strong linkages with vocational rehabilitation services to develop the IEPs." Not only does the list of suggested measures provide ways to indicate that this activity occurred, it suggests strategies or actions that make up the activity (e.g., work with the vocational rehabilitation system). The implication is that in developing agency linkages, agreements need to be developed, consultations should occur, various personnel will participate in developing and signing the IEP, vocational rehabilitation counselors will contact and provide services to students, and information will be shared across agencies. Thus, for every outcome and activity, a number of strategies to implement the activity or enhance the outcome have been identified.

Further, the indicators identified in this investigation should enhance research efforts to identify effective transition practices. In order to identify evidence that particular practices are associated with positive student outcomes, data across programs and contexts must be collected and analyzed in relation to these outcomes. The measures identified in this investigation provide an array of variables for use in future research. Also, since the outcomes, activities, and measures are somewhat specifically defined, data collection can occur in numerous sites and the results pooled and compared to evaluate relationships between program activities and outcomes and student outcomes.

The analytical model applied in this study provides a tool for conceptualizing relationships between outcomes, activities, and indicators. The Individuals with Disabilities Education Act Amendments of 1990 forces us to focus on specific outcomes and to develop a "coordinated set of activities" (104 STAT. 1103). To achieve the full intent of the legislation--

post-school success for students--the field must identify those activities that result in positive outcomes. To do this, we must evaluate our interventions, in part and in whole, and measure outcomes. In Figure 3, the analytical model has been extended specifically to Outcome 1 pertaining to competitive, integrated employment, using examples of measures identified in this investigation. Similar models for each outcome and activity using their related measures could be developed to visually represent a preliminary research or evaluation model. Finally, application could be extended to evaluate relationships among outcomes across the four conceptual levels.

Importantly, this study also extended further the systems-change model introduced by Rusch and Phelps (1987) and later used to analyze the multiple outcomes of model demonstration transition programs. In previous applications (Rusch, Kohler, & Hughes, 1992; Rusch et al., in press; Rusch, Kohler, & Rubin, submitted for publication) it was suggested that program developers and those focused on restructuring educational programs consider outcomes beyond the student in order to achieve the greatest impact on student outcomes. Suggested measures for multiple outcomes and activities across the four conceptual levels were identified in this study, thus providing numerous specific examples for consideration. Further, in each of the previous studies, it was found that few community-level outcomes or activities had been achieved (Rusch, Kohler, & Hughes, 1992; Rusch et al., in press; Rusch et al., submitted for publication). In the current investigation, indicators (and subsequently, strategies) were identified for two outcomes and six activities at the community-level. It is interesting to note that 21 (70%) of the 30 participants in the current investigation selected Outcome 1 as their first selection on which to focus. No other outcome had more than four participants identify it as a first priority. Specifically, for 10 of the 14 Program, Organizational, and Community-level outcomes, two or less persons selected them to focus on, thus illustrating the challenging and complex nature of the task. As indicated in the research literature, the primary focus in the past has been on evaluating student outcomes (i.e., employment or residential status, postsecondary education participation, social participation). It is much more difficult to measure program, organizational, or community outcomes.

The findings of this investigation are subject to some limitation. Although a number of indicators were identified for each outcome and activity, the list is by no means exhaustive. Researchers and service providers should not feel limited by these findings, but rather should use them as a starting point for implementation of services and evaluation of relationships between outcomes, and outcomes and activities. Also, since only 30 participants were involved in the identification of potential measures, the list is somewhat limited to their contexts and experiences. Future research is needed to expand the number of possible stakeholders who identify indicators. However, since these 30 participants represented model demonstration programs from across the United States and across a number of funding competitions, the findings may generalize to non federally-funded programs focused on employment. Further, it should be recognized that many of the measures identified in this investigation are not "new," and we do not mean to suggest that they are. What is important is that 30 model demonstration project directors worked together to compile both current and innovative ways to measure whether or not 17 employment-related outcomes and 51 activities have been achieved. Finally, we must realize that although the analytical model applied in this study to visually represent the relationships between outcomes, activities, and their related measures is somewhat simplified, the relationships are quite complex.

It has become more and more apparent that numerous forces or variables relate to the achievement of positive employment outcomes for youths with disabilities. The present investigation offers a complex array of indicators and strategies for implementing and evaluating program outcomes and activities across four conceptual levels. As we restructure our secondary-level special education programs and services, we must think beyond what is occurring in an individual classroom or employment site. The coordinated sets of activities that we develop to prepare students for post-school life must be supported by evidence of effectiveness and must impact programs, organizations, and the community, as well as students.

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Footnotes

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2. A complete list of outcomes, activities, and suggested measures is included in Appendix.

Table 1

Employment-focused Outcomes with Mean Ratings of 7.00 or Higher

Conceptual Level	Number	Outcomes
Student/Family	1	Model transition-to-employment projects must place students into competitive, integrated employment (including supported employment).
	2	Model transition-to-employment projects should demonstrate functional skill development of students.
	3	Model transition-to-employment projects should ensure that students are educated with their non-disabled peers.
Program	4	Model transition-to-employment projects should publish reports of their students' documented progress.
	5	Model transition-to-employment projects should be continued beyond the federal funding period.
	6	Model transition projects must utilize individualized education planning in relation to transition.
	7	Model transition-to-employment projects should provide students with job skill training.
	8	Model transition-to-employment projects should document student progress in employment-related skills (e.g., social skills).
	9	Model transition-to-employment projects should achieve replication at least at the level of full utilization of a project feature (e.g., interagency teaming), component (e.g., placement), or product (e.g., a training manual).
	10	Model transition-to-employment projects should establish employment support services.
	11	Model transition-to-employment projects should undertake development of materials to facilitate replication (e.g., replication guides, training manuals, assessment instruments).
	12	Model transition-to-employment projects should demonstrate cost effectiveness.

Table 1 (continued)

Conceptual Level	**Number**	**Outcomes**
Organization	13	Model transition projects should disseminate information about their projects by producing a product at least at the level of an article for the popular press.
	14	Transition-to-employment projects should develop and document a formal interface between education and community services (e.g., between schools and state vocational rehabilitation agencies).
	15	Model transition-to-employment projects should develop and document a cooperative service delivery model where more than one agency is providing consumer services.
Community	16	Model transition-to-employment projects should demonstrate improved access to community-based services for students.
	17	Model transition-to-employment projects should demonstrate improved work opportunities for students.

Note. The data in this table are from "Employment outcomes and activities for youths in transition" by F. R. Rusch, J. F. Enchelmaier, and P. D. Kohler, in press, Career Development for Exceptional Individuals. Copyright by the Division on Career Development and Transition of the Council for Exceptional Children. Reprinted by permission.

Table 2

Indicators of Selected Outcomes and Activities Across Four Conceptual Levels

NUMBER	DESCRIPTION
INDIVIDUAL/FAMILY LEVEL	
Outcome 1	**Model transition-to-employment projects must place students into competitive, integrated employment (including supported employment).** Indicators • Hours worked • Hourly wages • Number of students placed • Student demographics • Job types • Length of employment (days, weeks, months) • List of benefits (i.e., medical, vacation, sick time, profit sharing) • Number of jobs held prior to graduation and summary of evaluations of each placement • Annual salary • Number of full-time and part-time positions • Job patterns (e.g., never changed, voluntary change, laid off, quit, etc.) • Student satisfaction measures • Termination, reason (elaborate) • Record of how job was initially obtained and by whom • Number of employees at each business • Number and ratio of employees without disabilities on site when student present • Record of job match to student-stated work interests • Record of job advancement following initial placement -- increased job responsibilities or increased wages (e.g., in hrs worked, raises, promotions, job task responsibilities; increased level of indispensability to employer) • Documentation of single-subject research study • Reduction in public assistance (e.g., SSI, workers comp, public aid, etc.)
Activity 1a	**Provide job placement services.** Indicators • Potential Employer Contact Log (# of entries) • Number of potential employers • Number of student interviews • Number of placements • Types of placements • Number of potential employees • Identification of natural supports in each placement • Documentation of a specific "marketing" plan for each student • Student/family job preferences • Number employers contacted and method • Number student interviews, alone or assisted • Number of successful and unsuccessful placements and whether placement was in the top-priority list of student or family • Trainee waiting lists for placement • Number of placements per student

NUMBER	DESCRIPTION
Activity 1b	**Work with adult service agencies to ensure job placement.** Indicators • Signature of adult service representatives on each IEP • Record or letter of interagency agreement • Referral documentation • Number of meetings and frequency • Record of joint projects (i.e., Job Fair) • Record of business involvement with adult service agencies • Identification of roles adult service agencies play in job placement • Log of case management activities by type and frequency • Record of transition plan updates with adult service agencies • Written statement of percent time commitment to student and family that will occur at age 21 • Number of meetings of adult agencies with school personnel and/or student/family • Written progress reports on placement efforts • List of transition team members
Activity 1c	**Provide job exploration and job training opportunities as part of the school curriculum to prepare students for competitive employment.** Indicators • Number of days training in community (unpaid) per week • Number of days paid work per week • Hours worked during school day • Record of training and employment sites • Record of peer job coaching • Record of gifted and talented student support • Record of all school personnel involved in curriculum • Number of hours • List of job exploration sites, general and specific purposes for each site, competencies gained per student during exploration, number of hours in job exploration, and type of site • Performance data per student • Data on level of supervision • List of products produced and quantity (e.g., student resumes, training plans, or work profiles) • Number of training sites per student • Documentation of individualized training programs for students that reflect systematic instruction and strategies • Baseline and probe data pertaining to training • Graphs of student performance • Documentation of types of instruction or training provided

NUMBER	DESCRIPTION
Activity 1d	**Provide job support services.** **Indicators** • Number of training hours provided by teacher • Number of hours teacher present at employment site • Record of off-site support provided by teacher • Number of observation hours provided by teacher • Record of support provided by others (i.e., job coaches, voc. rehab. counselors, job developers) • Number of hours by school personnel other than teachers • Record of support provided by parents • Record of support provided by employer or supervisor • Contacts with family • Hours and type of school-based job-related instruction • Record of data-based fading against targeted performance criteria • Number of employee evaluations done by employer per month • Record of support provided by co-workers • Record of unusual incidents and training interventions • Record of training strategies and procedures • Record of data collection documenting skill acquisition
Activity 1e	**Provide technical assistance to adult service agencies to provide job placement and job support services.** **Indicators** • In-service workshop hours directed toward teaching job-placement and support techniques • Hours of direct training provided to job coaches on the job • One-to-one contact (contact logs) • Evidence of curriculum used • Type of training and technical assistance activities provided • Record of funds spent to train adult service providers • Workshop or inservice evaluation data • Needs assessment data • Number of people trained • List of training materials developed

NUMBER	DESCRIPTION
PROGRAM LEVEL	
Outcome 6	**Model transition projects should utilize individualized transition planning for students with disabilities.** Indicators • Number of plans developed • Number of plans completed • Written documentation of transition services as part of IEP • Record of number of transition planning meetings • Signatures of adult service providers and community agency personnel on IEP • Compilation of types of transition outcomes for students on annual basis • Results of parent or family survey of planning process • Evidence from student files illustrating program modifications to meet student's individualized transition needs • List of agency representatives participating in planning • Number of transition objectives in IEP • Documentation of assessment information utilized in plan development • Documentation of parent involvement in planning • Documentation of student involvement in planning • Documentation that service or curricular activities were provided as stated in the student's plan • Evidence of curriculum that facilitates student involvement in planning
Activity 6a	**Develop strong cooperative linkages with vocational rehabilitation services to develop the IEPs.** Indicators • Number of agreements developed • Number of consultations • Documented participation of personnel • Signature of vocational rehabilitation personnel on IEP • Record of contacts between vocational rehabilitation and student • Report of number of students receiving services from vocational rehabilitation • Letters of agreement • Documentation of joint use of information (e.g., school records, assessment information, medical data) • Evidence of referral system or process • Documentation of services provided to students

NUMBER	DESCRIPTION
Activity 6b	**Develop strong cooperative linkages with vocational education services to develop the IEPs.** Indicators • Record of agreement(s) developed • Number of joint activities, meetings, or consultations • Record of actual participation in IEP development • Signature of vocational education personnel on IEPs • Report of number of goals or objectives contained in IEP carried out by or in conjunction with vocational education • Record of vocational education contact with families • Vocational education services identified on IEP • Record of attendance at meetings • Record of interagency agreements • Record of student enrollment in vocational curricula • Record of vocational education services provided • Evidence of collaborative consultation between voc ed and special ed

NUMBER **DESCRIPTION**

ORGANIZATION LEVEL

Outcome 15 **Transition-to-employment projects should develop and document a cooperative service delivery model when more than one agency is providing consumer services.**

Indicators
- Number of agencies providing services
- Organizational structure for service provision
- Interagency agreement(s)
- Record of referral among agencies

Activity 15a **Articulate the roles of all associated agencies.**

Indicators
- Evidence of a process for developing of collaborative agreements
- Documentation of collaborative agreements
- Documentation of contractual arrangements
- Evidence of a process reviewing roles on a regular basis
- Number of formal operating agreements
- Number of informal operating agreements
- Evidence of networking effectiveness
- Evidence of a designated "coordinating" agency to oversee local agencies
- Number or existence of state laws or regulations reducing barriers to agency collaboration or articulating collaborative roles
- Documentation of services provided by and efforts of each agency

Activity 15b **Employ personnel whose role is to coordinate project activities.**

Indicators
- Job description of project coordinator or manager
- Evidence of a "coordinating" agency to oversee local agencies
- Documentation of state and local funds earmarked to support coordinating agency in this task
- Evidence of agency and project funding of personnel

Activity 15c **Document services provided by cooperating agencies.**

Indicators
- Record of employment services provided by type and by student
- Record of community living facilities and/or services provided
- Record of transportation arrangements and services
- Assignment of coordinating personnel, agency, or local planning councils to collect specific data on services offered, clients, costs, etc.
- Analysis of data collected for future decision making
- Case history of clients
- Number and type of activities completed by caseworkers
- Evidence of a process for evaluating accountability of cooperating agencies

NUMBER **DESCRIPTION**

COMMUNITY LEVEL

Outcome 17 **Model transition-to-employment projects should demonstrate improved work opportunities for youths with disabilities.**

Indicators

- Record of types of jobs that comprise placements
- Statistics pertaining to wages, benefits, and hours
- Percent of graduating class employed by level of employment (i.e., full-time, part-time)
- Percent employed at or above minimum wage
- Percent who move to improved work situations (e.g., promotions, job changes for increased salary, benefits, working hours, etc.)
- Percent who lose jobs and/or move to "poorer" jobs
- Number of employers associated with project or program
- Number of students employed first year of project compared to subsequent years

Activity 17a **Evaluate and document effectiveness of job placement and maintenance activities.**

Indicators

- Length of time on job
- Employee satisfaction data concerning job placement, pre-/post- project
- Employer satisfaction data concerning job placement, pre-/post- project
- Documented opportunities for advancement
- 1-, 3-, 5-year follow-ups on youths:
  1. Employed in jobs for which training was provided; in jobs for which training was not provided
  2. Employed but changed job (up and down) in job trained; not in jobs trained
  3. Unemployed; never employed; previously employed
- Data on youths employed and wages, benefits, length of employment, pre-/post-project
- Data on family satisfaction with job placement, pre-/post- project
- Data on employer willingness to hire, pre-/post- project

Activity 17b **Research job trends and business requirements.**

Indicators

- Record of project or employer advisory committee, members, meetings
- Labor-market surveys:
  Stable employment opportunities
  Potential increased employment opportunities
  Decreasing employment opportunities
  Dead-end employment
  Career ladder employment
  Job requirements

NUMBER	DESCRIPTION
Activity 17c	**Work cooperatively with community agencies to conduct longitudinal studies.** Indicators • Assess student outcomes: employment, community living, recreation, etc. • Assess quality of life via self rating or reliable informant • Follow-up data on individuals who change agencies • Evaluation data pertaining to working relationship between agencies and project • Record of agreements detailing longitudinal studies to be conducted and roles of participants • Documentation of funding source • Evidence of research design for study

From: Kohler, P.D., & Rusch, F.R. (1993). School to work transition: Identification of employment-related outcome and activity indicators. Champaign: University of Illinois, Transition Research Institute. (Submitted for publication.)

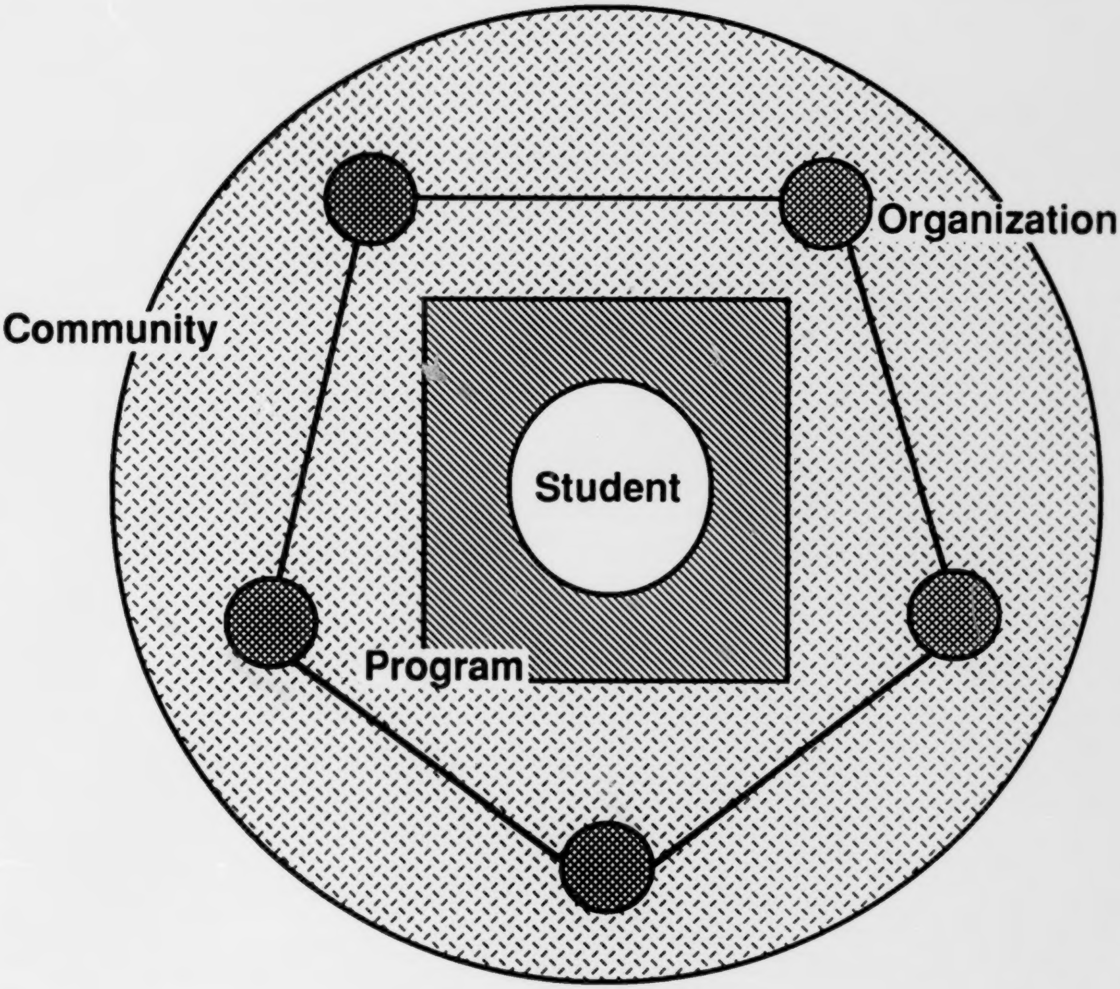
Organization
Community
Student
Program

Figure 1. Systems-level conceptual framework for evaluating program activities and outcomes.

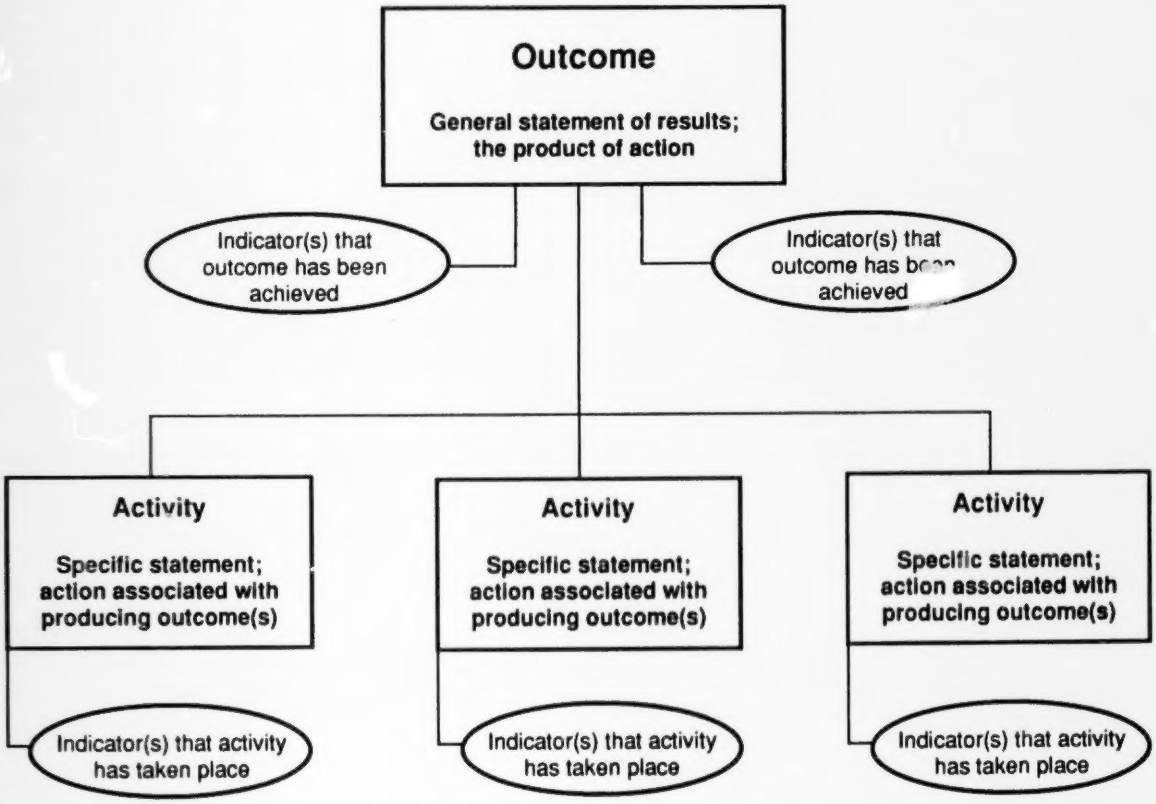
Outcome
General statement of results; the product of action
Indicator(s) that outcome has been achieved
Indicator(s) that outcome has been achieved
Activity
Specific statement; action associated with producing outcome(s)
Activity
Specific statement; action associated with producing outcome(s)
Activity
Specific statement; action associated with producing outcome(s)
Indicator(s) that activity has taken place
Indicator(s) that activity has taken place
Indicator(s) that activity has taken place

Figure 2. Analytical model illustrating perceived organizational relationship between an outcome, activities, and indicators.

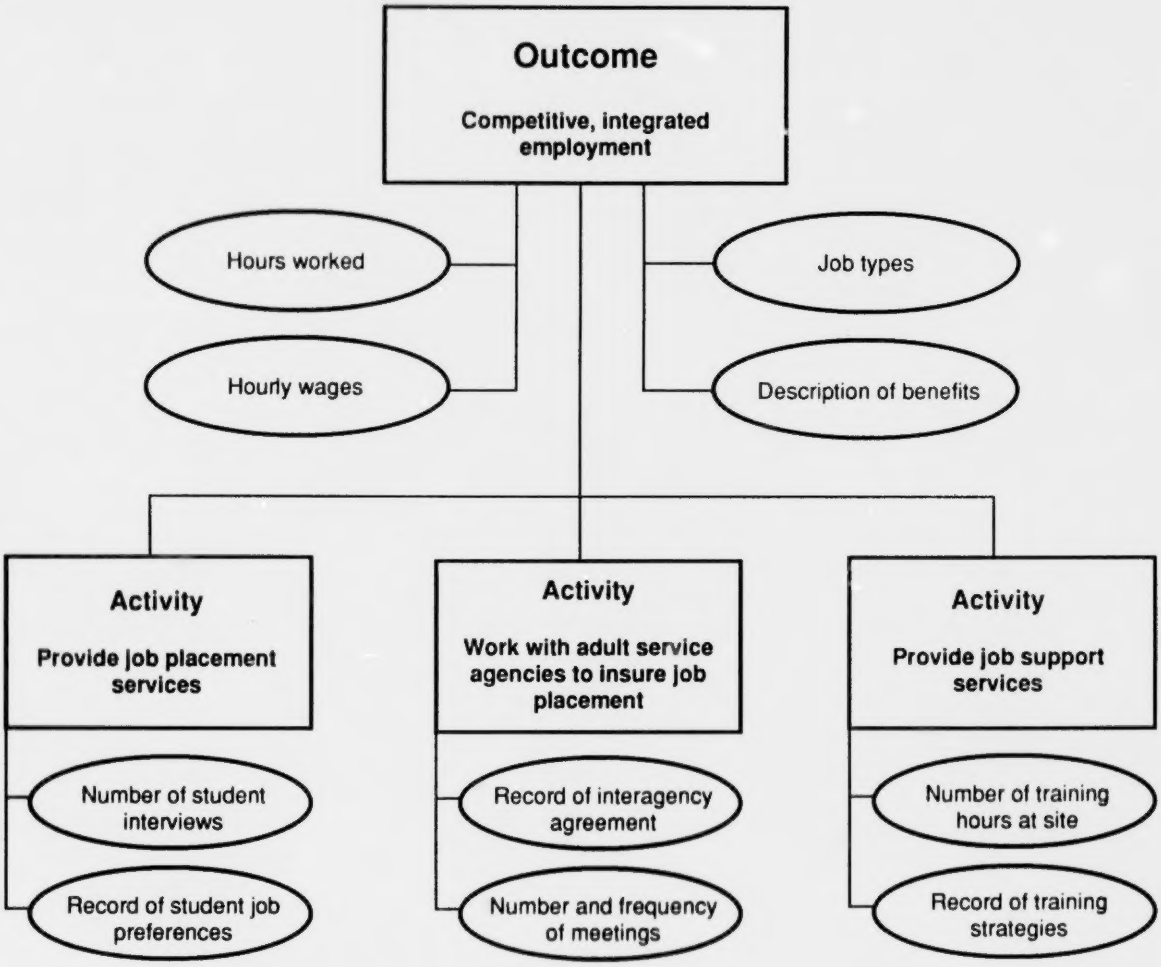
Outcome
Competitive, integrated employment
Hours worked
Hourly wages
Job types
Description of benefits
Activity
Provide job placement services
Activity
Work with adult service agencies to insure job placement
Activity
Provide job support services
Number of student interviews
Record of student job preferences
Record of interagency agreement
Number and frequency of meetings
Number of training hours at site
Record of training strategies

Figure 3. Analytical model of outcome, activities, and indicators extended to integrated, competitive employment.

APPENDIX

Employment-related Outcome and Activity Indicators

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Employment-related Outcome and Activity Indicators Across Four Conceptual Levels*

NUMBER **DESCRIPTION**

INDIVIDUAL/FAMILY LEVEL

Outcome 1 **Model transition-to-employment projects must place students into competitive, integrated employment (including supported employment).**

Indicators

- Hours worked
- Hourly wages
- Number of students placed
- Student demographics
- Job types
- Length of employment (days, weeks, months)
- List of benefits (i.e., medical, vacation, sick time, profit sharing)
- Number of jobs held prior to graduation and summary of evaluations of each placement
- Annual salary
- Number of full time and part time positions
- Job patterns (e.g., never changed, voluntary change, laid off, quit, etc.)
- Student satisfaction measures
- Termination, reason (elaborate)
- Record of how job was initially obtained and by whom
- Number of employees at each business
- Number and ratio of employees without disabilities on site when student present
- Record of job match to student-stated work interests
- Record of job advancement following initial placement -- increased job responsibilities or increased wages (e.g., in hrs. worked, raises, promotions, job task responsibilities; increased level of indispensability to employer)
- Documentation of single-subject research study
- Reduction in public assistance (e.g., SSI, workers comp, public aid, etc.)

Activity 1a **Provide job placement services.**

Indicators

- Potential Employer Contact Log (# of entries)
- Number of potential employers
- Number of student interviews
- Number of placements
- Types of placements
- Number of potential employees
- Identification of natural supports in each placement
- Documentation of a specific "marketing" plan for each student
- Student/family job preferences
- Number employers contacted and method
- Number student interviews, alone or assisted
- Number of successful and unsuccessful placements and whether placement was in the top priority list of student or family
- Trainee waiting lists for placement
- Number of placements per student

NUMBER	DESCRIPTION
Activity 1b	**Work with adult service agencies to insure job placement.** Indicators • Signature of adult service representatives on each IEP • Record or letter of interagency agreement • Referral documentation • Number of meetings and frequency • Record of joint projects (i.e., Job Fair) • Record of business involvement with adult service agencies • Identification of roles adult service agencies play in job placement • Log of case management activities by type and frequency • Record of transition plan updates with adult service agencies • Percent time commitment to student and family in writing that will occur at age 21 • Number of meetings of adult agencies with school personnel, and/or student/family • Written progress reports on placement efforts • List of transition team members
Activity 1c	**Provide job exploration and job training opportunities as part of the school curriculum to prepare students for competitive employment.** Indicators • Number of days training in community (unpaid) per week • Number of days paid work per week • Hours worked during school day • Record of training and employment sites • Record of peer job coaching • Record of gifted and talented student support • Record of all school personnel involved in curriculum • Number of hours • List of job exploration sites, general and specific purposes for each site, competencies gained per student during exploration, number of hours in job exploration and type of site • Performance data per student • Data on level of supervision • List of products produced and quantity (e.g., student resumes, training plans, or work profiles) • Number of training sites per student • Documentation of individualized training programs for students which reflect systematic instruction and strategies • Baseline and probe data pertaining to training • Graphs of student performance • Documentation of types of instruction or training provided

NUMBER	DESCRIPTION
Activity 1d	**Provide job support services.** Indicators • Number of training hours provided by teacher • Number of hours teacher at employment site • Record of off-site support provided by teacher • Number of observation hours provided by teacher • Record of support provided by others (i.e., job coaches, voc. rehab. counselors, job developers) • Number of hours by school personnel other than teachers • Record of support provided by parents • Record of support provided by employer or supervisor • Contacts with family • Hours and type of school-based job related instruction • Record of data-based fading against targeted performance criteria • Number of employee evaluations done by employer per month • Record of support provided by coworkers • Record of unusual incidents and training interventions • Record of training strategies and procedures • Record of data collection documenting skill acquisition
Activity 1e	**Provide technical assistance to adult service agencies to provide job placement and job support services.** Indicators • In-service workshop hours directed toward teaching job placement and support techniques • Hours of direct training provided to job coaches on the job • One-to-one contact (contact logs) • Evidence of curriculum used • Type of training and technical assistance activities provided • Record of funds spent to train adult service providers • Workshop or inservice evaluation data • Needs assessment data • Number of people trained • List of training materials developed

NUMBER	DESCRIPTION
INDIVIDUAL/FAMILY LEVEL	
Outcome 2	**Model transition-to-employment projects should demonstrate functional skill development of students.** Indicators • List of social skills taught and acquired • List of work skills taught and acquired • Evaluation data from curriculum-based assessment instruments • Social validation data (e.g., targeted skills, performance levels, measures) • Evaluation data from performance in community-based activities • Skills assessment validated against employer requirements and work responsibilities • Observation data on skills taught, acquired, and generalized to community setting • Observation data on work skills taught, acquired, and generalized to community setting
Activity 2a	**Use instruments and procedures that identify individual, functional skills, and consumer preferences and life goals.** Indicators • Number and kind of IEP goals listed and achieved • Student signature on IEP • Data from situational assessment instruments (e.g., situations, skills, performance) • Employer assessments of student skills or performance • List of assessment instruments and/or procedures used • Parent survey data • Student survey data • Use of rehabilitation plan • Proportion and kind of IEP goals listed and achieved
Activity 2b	**Develop individualized objectives for students that reflect functional skill development in the domains of vocational skills, independent living, and community integration.** Indicators • Number of objectives pertaining to vocational skills; number achieved • Number of objectives pertaining to independent living; number achieved • Number of objectives pertaining to community integration; number achieved • Documented match between IEP/ITP goals and objectives and stated transition outcomes • Number of students in job training, employment, or other situations which match IEP goals or activities

NUMBER	DESCRIPTION
INDIVIDUAL/FAMILY LEVEL	
Outcome 3	**Model transition-to-employment projects should ensure that students experience education or training with nondisabled peers.** Indicators • Number and proportion of nondisabled individuals working in similar employment settings • Hours and proportion of contact per day with nondisabled peers • Number and proportion of nondisabled peers present in classroom settings (number of students with disabilities/number of students in classroom) • Record of extra-curricular activities with nondisabled peers (e.g., school or community clubs or activities) • Ratio of persons with and without disabilities at work site at time of work • Record of samples of self-initiated or other student initiated affiliations (e.g., evening telephone calls, joint activities) • Record of roles played by nondisabled peers • Record of natural interactions and supports present at the setting
Activity 3a	**Conduct training activities for youths without disabilities as well as for those with disabilities.** Indicators • Number and proportion of students without disabilities present during instruction provided to youths with disabilities • Number and type of training situations provided which include students with and without disabilities • Record of chronological age of peers involved in training activities
Activity 3b	**Utilize integrated competitive and supported employment placements.** Indicators • Number and proportion of students placed in individual integrated work settings • Ratio of people with and without disabilities at worksite during the time of work • Samples of coworker contact (e.g., breaks, work times, before and after work) • Number of coworkers providing support • Documentation of coworker support (e.g., functions, frequency)
Activity 3c	**Utilize nonpaid volunteer placements in compliance with DOL standards.** Indicators • Written letters of agreement • DOL worker permit (on site) • Number of students in volunteer placements • Number of hours worked • Number of volunteer sites • Number of letters or contracts of agreement • School permit for the group • Record of student duties or functions • Documentation of student outcomes as a result of placement • Record of student placement as an IEP or transition goal

NUMBER	DESCRIPTION
Activity 3d	**Utilize community-based education and training sites.** Indicators • Number of students provided with community-based instruction • Number of community-based instruction sites • Short description of sites and transportation used to access • Time spent at the sites for student; for age group; for disability group • Percent of school day in community-based instruction • Average number and proportion of hours in community-based instruction -- across categories: work, residential (street, stores, etc.), leisure/recreation settings • Record of student achievement or performance in community-based instruction • Record of community-based instruction curricula • Record of community-based instruction objectives, criteria, and outcomes

NUMBER	DESCRIPTION
PROGRAM LEVEL	
Outcome 4	**Model transition-to-employment projects should publish reports of their students' documented progress.** Indicators • A list of the published reports • A mailing or recipient list • Timelines (evaluation plan) for preparation and dissemination
Activity 4a	**Develop a final report for students and their families.** Indicators • Sample comments pertaining to reports from students or families • Record of comments from a student/parent review committee • A list of the reports • A mailing or recipient list • Record of parent and student attendance at conferences during the program
Activity 4b	**Utilize Individualized Education Plans (IEPs) as the basis for publishing reports.** Indicators • Evidence of an IEP format that clearly documents progress • Evidence of a report format that clearly identifies areas on the IEP
Activity 4c	**Conduct a longitudinal study of graduates and report these data.** Indicators • Report of study design and sample selection • List of students in the sample • Reporting format for longitudinal data • Analysis of preliminary data • Student characteristics (e.g., months in SPED program, % time in resource programs, hrs. in vocational programs, demographics) • Employment status and environment • Employment outcomes (# weeks employed, hrs./wk, wages/hr., annual salary) • Current living status • Level of family involvement or support • Job types • Job history • Place of residence and cost • Satisfaction with social relationships • Maintain research data on graduates of school whether or not they participated in the program

NUMBER **DESCRIPTION**

PROGRAM LEVEL

Outcome 5 **Model transition-to-employment projects should be continued beyond the federal funding period.**

Indicators

- Evidence that project has met or exceeded majority (95%) of original goals and objectives
- Evidence of commitment from local community to support (match percent funds/inkind) the revised or new goals of the project
- Evidence of positive impact to local communities throughout the grant period
- Record of staff employed and job descriptions
- Letters of agreement with agencies
- List of funding sources contracted to continue funding of program
- Documentation of replication at other sites
- Documentation of continuation plan
- Documentation that program services will be provided by or transferred to another entity

Activity 5a **Identify alternative funding from other agencies to continue the project.**

Indicators

- Identification and list of specific agencies who will contribute a percentage of funding (e.g., consortium of agencies to fund a transition center)
- Identification of specific agency funding earmarked for transition-to-employment centers or services
- Record of funds converted from other uses
- Directory of potential funding sources

Activity 5b **Develop funding from within local special education program budget for transition-to-employment projects.**

Indicators

- Record of personnel or matching funds identified and earmarked for project or services
- Report of staff employed and job descriptions for which there is state or local reimbursement
- List of and description of services or personnel billed to special education for transition-to-employment activities
- Letters of agreement and proposed use of dollars
- Record of agency linkages with local special education programs
- Record of personnel and functions provided through special education budgets

NUMBER **DESCRIPTION**

PROGRAM LEVEL

Outcome 6 **Model transition projects should utilize individualized transition planning for students with disabilities.**

Indicators

- Number of plans developed
- Number of plans completed
- Written documentation of transition services as part of IEP
- Record of number of transition planning meetings
- Signatures of adult service providers and community agency personnel on IEP
- Compilation of types of transition outcomes for students on annual basis
- Results of parent or family survey of planning process
- Evidence from student files illustrating program modifications to meet student's individualized transition needs
- List of agency representatives participating in planning
- Number of transition objectives in IEP
- Documentation of assessment information utilized in plan development
- Documentation of parent involvement in planning
- Documentation of student involvement in planning
- Documentation that service or curricular activities were provided as stated in the student's plan
- Evidence of curriculum which facilitates student involvement in planning

Activity 6a **Develop strong cooperative linkages with vocational rehabilitation services to develop the IEPs.**

Indicators

- Number of agreements developed
- Number of consultations
- Documented participation of personnel
- Signature of vocational rehabilitation personnel on IEP
- Record of contacts between vocational rehabilitation and student
- Report of number of students receiving services from vocational rehabilitation
- Letters of agreement
- Documentation of joint use of information (e.g., school records, assessment information, medical data)
- Evidence of referral system or process
- Documentation of services provided to students

NUMBER	DESCRIPTION
Activity 6b	**Develop strong cooperative linkages with vocational education services to develop the IEPs.** __Indicators__ • Record of agreement(s) developed • Number of joint activities, meetings, or consultations • Record of actual participation in IEP development • Signature of vocational education personnel on IEPs • Report of number of goals or objectives contained in IEP carried out by or in conjunction with vocational education • Record of vocational education contact with families • Vocational education services identified on IEP • Record of attendance at meetings • Record of interagency agreements • Record of student enrollment in vocational curricula • Record of vocational education services provided • Evidence of collaborative consultation between voc ed and special ed

NUMBER	DESCRIPTION
PROGRAM LEVEL	
Outcome 7	**Model transition-to-employment projects should provide job skill training.** **Indicators** • Record of specific job skill competencies attained • Competency ratings of general work skills, job specific skills, and work-related behaviors • Placement rates in jobs related to training areas • Record of teaching objectives and student performance • List of job skill areas covered in training • Number of training hours • Number of follow-along hours • Evidence of business sector input in training program development • Evidence of local industry needs assessment relevant to employee competencies
Activity 7a	**Conduct job skill analysis.** **Indicators** • Data from direct observation of successful employees • Data pertaining to specific job tasks and general work skills • Number and type of jobs analyzed • Directory of job skill analysis • Evidence of job analysis based on best-practice criteria • Social validation data pertaining to production levels
Activity 7b	**Develop a curriculum to facilitate training.** **Indicators** • Evidence that curriculum goals and objectives relate directly to placement outcome measures • Data from continuous measures of student progress integrated throughout the curriculum • Curriculum effectiveness based on placement outcome measures • Curriculum used • Revisions of curriculum used • External evaluation data pertaining to the curriculum • Content analysis based on best practice criteria • Number of curricular options available to students • Identification of curricular objectives and student competencies • Documentation of curricular development activities or process (e.g., funding, number of personnel involved, description of process)

NUMBER	DESCRIPTION
Activity 7c	**Determine labor market needs.** Indicators • Continuous sampling of labor market via employer interviews • Documented use of Department of Labor and state employment security data • Record of area employers on advisory committees • Lists of types of jobs in newspaper • Reports from job service • Data from labor market analyses • Data from chambers of commerce or Private Industry Councils
Activity 7d	**Identify job skills that employers require of their employees.** Indicators • Data from employer interviews identifying and validating job skills • Job analysis data • Data from direct observation of employees at multiple sites • Record of job description analysis • Data from employer surveys

NUMBER **DESCRIPTION**

PROGRAM LEVEL

Outcome 8 **Model transition-to-employment projects should document student progress in employment-related skills (e.g., social skills).**

Indicators

- Evidence of curriculum
- Documentation of performance through self-report and employer evaluations
- Documentation of assessment process or system
- Documentation of process to apply assessment information to student program
- Type of skills taught; how assessed; progress on objectives written for teaching the skill
- Use of rehabilitation plan that tracks progress in target area over time
- Number of IEP goals met or completed
- Scores of standardized measures
- Data from employer rating or evaluations
- Data from self-rating by employee
- Data from curriculum-based assessment
- Data from situational assessment

Activity 8a **Undertake social skills assessment of students.**

Indicators

- Record of instruments used or designed
- Results per student
- Record of role of teacher, student, employer and families in the assessment process
- Documentation of barriers discovered in conducting assessments
- Time and resources used in assessments
- Evidence of rehabilitation plan based on staff or employer observations
- Data from employer evaluations
- Data from coworker or peer interviews

Activity 8b **Provide on-site community-based training in employment-related social skills.**

Indicators

- Evidence of business involvement in training
- Record of coworker interactions
- Record of supervisor interactions
- Length of stay in job
- Number of students participating in training
- Record of skills taught and methods used
- Record of time and resources used for instruction
- Evidence of task analyses
- Percent of on-site time dedicated to social skills training
- Number and description of community sites used
- Record of persons providing on-site training

NUMBER	DESCRIPTION
Activity 8c	**Assess student progress in job-related skills.** Indicators • Amount of supervision required • Data on dependability and punctuality • Employer evaluation data • Documentation of progress in relation to IEP goals and objectives • Number of mastered objectives written to teach the skill or behavior • Employee or supervisor ratings pre and post instruction • Student self-report pre and post instruction • Record of barriers encountered in measuring outcomes • Record of IEP goals met or completed • Data from curriculum-based assessment • Data from situational assessment • Documentation of assessment process or system • Documentation of process to utilize assessment information • Standardized measures of adaptive behavior • Percentage of job tasks completed • Percentage of work completed compared to work required • Documentation of job supports needed to perform as required

NUMBER	DESCRIPTION
PROGRAM LEVEL	
Outcome 9	**Model transition-to-employment projects should achieve replication at least at the level of full utilization of a project feature, component, or product (such as a training manual).** **Indicators** • Number of replication sites, components, or products • Letters of agreement • External evaluation data pertaining to replication sites • Evidence of model implementation checklist outlining principle model components • Number of sites in which on-site training was provided • Number of persons impacted by the replication • Record of impact pertaining to the replication
Activity 9a	**Negotiate directly with an organization or agency to replicate the model project.** **Indicators** • Number of contacts and record of meetings • Letter of agreement
Activity 9b	**Develop and disseminate replication manual(s).** **Indicators** • Copy of replication manual • Evidence from external review of the manual; evaluation data • Number of manuals disseminated • Record of dissemination: who, when • Number of replicated projects utilizing manual
Activity 9c	**Disseminate information and products to other agencies.** **Indicators** • Number and type of information or products disseminated • Number of published articles • Number of responses to requests for information • Record of responses to requests for information • Evidence of dissemination process or system • Documentation of requests for information

NUMBER **DESCRIPTION**

PROGRAM LEVEL

Outcome 10 **Model transition-to-employment projects should establish employment support services.**

Indicators

- Number of qualified job coaches or employment specialists available
- Number of training hours provided to coworkers
- Number of training hours provided to supervisors
- Number of placements
- Record of type of support provided at time of placement
- Length of time on the job
- List of services to be developed and expected function of services
- Data from evaluation of roles or use of services
- Data from needs assessment pertaining to support services

Activity 10a **Train job coaches.**

Indicators

- Evaluation data from employers relevant to job coaches
- Record of competencies identified for training (e.g., behavior management, environmental analysis, task analysis, designing accommodations, communication skills, etc.)
- Number of hours of training provided
- Documentation of materials used for instruction
- Data from evaluation of instruction by job coaches
- Evidence of competency checklist based on best practice criteria
- Number of coaches trained; number employed
- Performance data from observation of those trained pertaining to competencies (e.g., systematic fading, transferring support, trouble shooting)

Activity 10b **Provide coworker training.**

Indicators

- Total number of coworkers trained
- Number of coworkers trained as mentors
- Number of coworkers trained as consultants
- Number of coworkers trained as trainers or data collectors
- Number of coworkers who advocate for the employee
- List of questions coworkers have to use as prompts
- Record of instructional support strategies offered or requested by coworkers
- Data on coworker satisfaction with instructional support
- Pre-post test of coworkers on instructional support utilization
- Fidelity checklist based on student needs
- Record of coworker use of systematic training strategies
- Record of type and frequency of coworker support provided to employee

NUMBER	DESCRIPTION
Activity 10c	**Utilize vocational rehabilitation counselors as appropriate.** Indicators • Record of vocational rehabilitation participation on individual planning teams • Record of vocational rehabilitation participation on advisory board • Number of referrals to vocational rehabilitation • Number of vocational rehabilitation cases opened • Number of successful closures • Number of students receiving training provided by vocational rehabilitation • Record of services provided to students • Estimated cost of involvement per student • Frequency of contact by student, by school • Record of activities completed by counselors • Record of time extensions on funds for support • Record of funding by student or services provided
Activity 10d	**Educate employers regarding benefits of hiring people with disabilities.** Indicators • Number of training hours to employers on benefits of hiring people with disabilities • Number of presentations to business organizations, chambers of commerce, and service clubs regarding the benefits of employing persons with disabilities • Number of employers who have hired a person with a disability • Record of potential strategies for educating employers • Record of strategies chosen by employers • Number of presentations made to employer groups • Data pertaining to present status of employees with disabilities per employment site or sector • Record of and data from needs assessment conducted with employers
Activity 10e	**Train and utilize job developers.** Indicators • Number of job developers trained • Number of jobs developed • Record of competencies identified for training (e.g., conducting community job market surveys, contacting prospective employers, conducting analyses of job and work environments, developing client profiles, and job matching) • Number of jobs and type of information listed in job site file • Record of recruitment strategies used and list of those that are most successful • Record of job tasks and applicable instructional support strategies • Pre-post measure of task or job performance • Documentation of materials used for instruction • Evaluation data pertaining to instructional methods • Performance data of persons trained pertaining to competencies • Employer evaluation data pertaining to performance of job developers

NUMBER	DESCRIPTION
PROGRAM LEVEL	
Outcome 11	**Model transition-to-employment projects should undertake to develop materials to facilitate replication (e.g., replication guides, training manuals, assessment instruments).** **Indicators** • Record of replication materials • Documentation of project activities and systems (to be incorporated into replication documents) • Record of comments from an "editorial" board or review committee • Record of people or projects to whom materials were sent • Information or descriptions from replication sites • Number of materials requested and distributed • Evaluation data of materials by users • Documentation of marketing process or activities • Documentation of demand (requests, orders) for materials • Documentation of known formal and informal replication attempts using the materials • Number and type of products developed
Activity 11a	**Allocate a section of the project budget to publication and production costs.** **Indicators** • Amount spent on publication or production • Itemized listing of associated costs • Percent funds allocated to publication and production • Percent of funds used • Record of budgeted allocations for publication • Documentation that budget was spent as specified
Activity 11b	**Identify production priorities initially and monitor throughout the life of the project.** **Indicators** • Data from process evaluation reports of project implementation activities • Quarterly reports on progress towards production goals • Evidence that final product completed by anticipated production date • Type and number of products by year of project • Evidence that production is included in evaluation plan • Record of timeline illustrating production schedule

NUMBER	DESCRIPTION
PROGRAM LEVEL	
Outcome 12	**Model transition-to-employment projects should demonstrate cost effectiveness.** Indicators • Record of all activities and costs associated with project • Dollar reduction associated with less reliance on social programs • Ratio of cost of support to wages earned • Marginal program costs over and above average per pupil expenditure • Record and accounting of in-kind contributions or services provided by other agencies • Monetary value associated with services provided by volunteers
Activity 12a	**Record all real costs of project activities.** Indicators • Dollars allocated and spent on student training and support activities • Documentation of accounting system and procedures • Data or findings from audit reports
Activity 12b	**Record effectiveness measures such as time allocated to training and quality of life measures.** Indicators • Cost/benefit analysis data • Student earnings while participating in program • Reduction in costs of social programs (e.g., SSI, welfare, etc.)

NUMBER **DESCRIPTION**

ORGANIZATIONAL LEVEL

Outcome 13 **Model transition projects should disseminate information about their projects by producing a product at least at the level of an article for the popular press.**

Indicators

- Bibliography of articles or products (e.g., newsletters, monographs, replication materials, videotapes, brochures)
- Number of or list of people or entities receiving products
- Record of articles produced
- Record of publication source and audience
- List of journals, magazines, newspapers, TV shows in which program has been reported
- Number of products by type
- Number of presentations made pertaining to project
- Evaluation information pertaining to products

Activity 13a **Employ a project director with a commitment to dissemination of information at least at this level.**

Indicators

- Bibliography of articles or products
- Evidence that vita of director reflects writing background
- Evidence that job announcement reflects dissemination as a job responsibility of director
- Evidence that job description reflects dissemination as a job responsibility of director
- Articles written
- Publication source and audience
- Identification or evidence of key staff person or department responsible for dissemination activities
- Evidence that director has documented performance in scholarship
- Publication record of director
- Number of project objectives pertaining to dissemination

Activity 13b **Require all workers to keep accurate records of all service and other activities conducted by the project.**

Indicators

- Number of activities conducted by category and personnel
- Evidence of recording forms
- Program evaluation results pertaining to record keeping
- Record of weekly activities log compiled by project staff
- Bi-annual summary of activities per project
- Project documentation notebook by category and by event
- Record of products disseminated
- Travel records of employees (e.g., miles, date, place)
- Data from cross-checking records (e.g., service records per student with travel log of employee)

NUMBER	DESCRIPTION
ORGANIZATIONAL LEVEL	
Outcome 14	**Transition-to-employment projects should develop and document a formal interface between education and community services (e.g., between schools and state vocational rehabilitation agencies).** Indicators • Record of meeting held, at what level (state, regional, local), and agenda • Letters of formal agreement • Pre and post assessment of consumer and agency satisfaction • Record of formal interagency agreements • Research data on participation of community service providers in transition planning and implementation processes • Record of interagency inservice training and forums related to transition • Record of active transition councils with representatives from schools, community services, families, students, etc.
Activity 14a	**Conduct workshops to train personnel.** Indicators • Record of needs assessment to facilitate the interface • Record of number of needs or resources that can and cannot be met and justification • Record of workshops and participants involved to determine training content • Evidence of training packets including objectives and materials • Demographics of persons involved in workshops and agencies represented • Data from workshop evaluations • Research data on changes in transition activities following workshops • Number of workshops • Number of participants
Activity 14b	**Communicate needs of project consumers to community agency personnel.** Indicators • Documentation of attendance by community agency personnel at transition planning meetings • Research data on the outcomes of service provision related to the communication of needs • Documentation of planning for future services based on currently communicated needs • Data from consumer surveys • Data from needs assessment studies

NUMBER	DESCRIPTION
Activity 14c	**Document meetings between education professionals and professionals/paraprofessionals outside of education.** Indicators • Record of meeting dates, topics, attendance, and representation of groups • Research data related to outcomes of such meetings (e.g., impact on services available) • Record of meeting agendas

NUMBER **DESCRIPTION**

ORGANIZATION LEVEL

Outcome 15 **Transition-to-employment projects should develop and document a cooperative service delivery model where more than one agency is providing consumer services.**

Indicators
- Number of agencies providing services
- Organizational structure for service provision
- Interagency agreement(s)
- Record of referral among agencies

Activity 15a **Articulate the roles of all associated agencies.**

Indicators
- Evidence of a process for the development of collaborative agreements
- Documentation of collaborative agreements
- Documentation of contractual arrangements
- Evidence of a process to review roles on a regular basis
- Number of formal operating agreements
- Number of informal operating agreements
- Evidence of networking effectiveness
- Evidence of a designated "coordinating" agency to oversee local agencies
- Number or existence of state laws or regulations reducing barriers to agency collaboration or articulating collaborative roles
- Documentation of services provided by and efforts of each agency

Activity 15b **Employ personnel whose role is to coordinate project activities.**

Indicators
- Job description of project coordinator or manager
- Evidence of a "coordinating" agency to oversee local agencies
- Documentation of state and local funds earmarked to support coordinating agency in this task
- Evidence of agency and project funding of personnel

Activity 15c **Document services provided by cooperating agencies.**

Indicators
- Record of employment services provided by type and by student
- Record of community living facilities and/or services provided
- Record of transportation arrangements and services
- Assignment of coordinating personnel, agency, or local planning councils to collect specific data on services offered, clients, costs, etc.
- Analysis of data collected for future decision making
- Case history of clients
- Number and type of activities completed by caseworkers
- Evidence of a process for evaluating accountability of cooperating agencies

NUMBER	DESCRIPTION
COMMUNITY LEVEL	
Outcome 16	**Model transition-to-employment projects should demonstrate improved access to community-based services for persons with disabilities.** Indicators • Number and type of generic resources used • Number and type of applications filed with community-based agencies • Number and type of community leisure activities participated in • Record of community resource training (banking, shopping for clothes or groceries, riding public bus, use of restaurant or fast-foods, etc.) • Record of activities (contacts made) to improve access • Evidence of agreements developed • Pre and post survey data pertaining to community access • Record of projects or products completed • Record of pre- and post-project employment, recreation, and living sites • Number of community-based activities • Number of hours in community-based activities • Data pertaining to pre- and post-satisfaction of persons with disabilities and their families • Data pertaining to increase in options or services available in the community (e.g., wheel chair accessible shopping carts, visual aids, ramps, etc.) • Data pertaining to increased public awareness of people with disabilities
Activity 16a	**Document the number of students in the project served by community agencies.** Indicators • Record of agencies contacted and result of contact • Record of identified needs not served by community agencies • Number referrals made and percent accepted • Number of students served by community agencies pre and post project and ratio of students with and without disabilities to staff • Record of products developed identifying agencies and services
Activity 16b	**Conduct outreach activities such as seminars and workshops for community agency personnel.** Indicators • Number and type of seminars • Number of people attending seminars • Evaluation data pertaining to the seminars • Number and type of contacts to community agencies (mailings, phone calls, etc.) • Number of requests for information • Number and type of agencies contacted • Record of workshops, agendas, and agency personnel who attended • Number of workshops completed • Number of participants • Data pertaining to satisfaction of participants • Evidence of workshop materials (e.g., program, registration materials)

NUMBER	DESCRIPTION
Activity 16c	**Conduct technical assistance services to center-based agency personnel to foster conversion to community-based services.** **Indicators** • Number and type of information disseminated • Amount of time per staff person spent in consultation activities • Number and types of requests for technical assistance • Record of consultation activities and associated outcomes • Time spent per agency • Pre and post technical assistance competencies and performance evaluations of agency personnel • Data pertaining to agency needs necessary for the conversion of services • Evidence of technical assistance materials (e.g., recommended reading or video list, manuals) • Pre and post measures of the number of agency clients participating in center-based and community-based services

NUMBER **DESCRIPTION**

COMMUNITY LEVEL

Outcome 17 **Model transition-to-employment projects should demonstrate improved work opportunities for youths with disabilities.**

Indicators

- Record of types of jobs which comprise placements
- Statistics pertaining to wages, benefits, and hours
- Percent of graduating class employed by level of employment (i.e., full time, part time)
- Percent employed at or above minimum wage
- Percent who move to improved work situations (e.g., promotions, job changes for increased salaries, benefits, working hours, etc.)
- Percent who lose jobs and/or move to "poorer" jobs
- Number of employers associated with project or program
- Number of students employed first year of project compared to subsequent years

Activity 17a **Evaluate and document effectiveness of job placement and maintenance activities.**

Indicators

- Length of time on job
- Employee satisfaction data concerning job placement, pre and post project
- Employer satisfaction data concerning job placement, pre and post project
- Documented opportunities for advancement
- 1, 3, 5 year follow-ups on youths:
    1. Employed in jobs for which training was provided; in jobs for which training was not provided;
    2. Employed but changed job (up and down) in job trained; not in jobs trained
    3. Unemployed; never employed; previously employed
- Data on youths employed and wages, benefits, length of employment, pre and post project
- Data on family satisfaction with job placement, pre-post project
- Data on employer willingness to hire, pre-post project

Activity 17b **Research job trends and business requirements.**

Indicators

- Record of project or employer advisory committee, members, meetings
- Labor market surveys:
    - Stable employment opportunities
    - Potential increased employment opportunities
    - Decreasing employment opportunities
    - Dead-end employment
    - Career ladder employment
    - Job requirements

NUMBER	DESCRIPTION
Activity 17c	**Work cooperatively with community agencies to conduct longitudinal studies.** Indicators • Assess student outcomes: employment, community living, recreation, etc. • Assess quality of life via self rating or reliable informant • Follow-up data on individuals who change agencies • Evaluation data pertaining to working relationship between agencies and project • Record of agreements detailing longitudinal studies to be conducted and roles of participants • Documentation of funding source • Evidence of research design for study

• From: Kohler, P.D., & Rusch, F.R. (1993). School to work transition: Identification of employment-related outcome and activity indicators. Champaign: University of Illinois, Transition Research Institute. (Submitted for publication.)

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